

## EDUCATION

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- UC San Diego: PhD in Economics, May 2017
- University of Tokyo: Masters in Public Policy, Apr 2012
- UC Berkeley: BEng in Industrial Engineering, Dec 2007

## EMPLOYMENT

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<b>Data Science Associate</b>	<b>Pew Research Center</b>	<b>2017 - Present</b>
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### *Data Labs*

- Led a team of 4 in a research project from the initial idea generation to the design of back-end infrastructure and data analysis. Trained and deployed a neural network model to more than 100K images using Transfer Learning. Python/R/Django/AWS.
- Conceptualized and developed a geodatabase that allows researchers to study how attitudes of survey respondents overlay with geographic components.
- Authored and coauthored blog posts that aim to introduce data science/programming to social scientists <https://medium.com/pew-research-center-decoded>
- Collaborated with subject teams to develop joint research projects.
- Organized and presented in Brownbag to introduce data science to Center-wide audience to complement their survey work.

<b>Fellow</b>	<b>Data Science for Social Good</b>	<b>2016</b>
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- Built a machine learning prediction model to predict students at risk of interacting with the juvenile criminal justice, and identify key risk factors.
- Contributed end-to-end data pipeline that include data cleaning, ETL process, model training, deployment and inference. Model performs 87% better than the baseline in identifying students at risk. Python/SQL/Command Line Tools

<b>Teaching Assistant</b>	<b>UC San Diego</b>	<b>2012 - 2017</b>
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- Served as a teaching assistant for 11 undergraduate courses, primarily on introductory and intermediate microeconomics sequences

<b>Analyst</b>	<b>BlackRock</b>	<b>2008-2010</b>
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### *Solutions Center*

- Supported 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 Relationship Management group to support sales and implementation for clients

<b>Engineering Intern</b>	<b>Intel</b>	<b>2006</b>
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### *Manufacturing Engineering Group*

- 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

## RESEARCH

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### Reports

- **Gender and Jobs in Online Image Search** Pew Research Center (with Stefan Wojcik, Brian Broderick and Adam Hughes) Covered by: CNN, MarketWatch, The Washington Post, Mother Jones

### Peer-Reviewed

- **Advertisers Capture: Evidence from Hong Kong** (Submitted) Covered By: Marginal Revolution

- 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, run multinomial logistic regressions to estimate and calculate the financial loss that a pro-Democracy newspaper suffered
- **Measuring Subjectivity in History Textbooks** (R&R) Covered By: BBC
- Write Python scripts to clean the text, count adjectives, calculate the ratio of positive to negative words and employ word embedding (word2vec)

#### Conferences

- **2019:** AAPOR, ICA
- **2018:** APSA, APSA Computational Social Science Pre-Conference
- **2016:** Tobin Project

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#### OTHER PROJECTS AND EXPERIENCES

<b>Quantitative Researcher</b>	<b>UC San Diego</b>	<b>Dec 2016-Apr 2017</b>
<ul style="list-style-type: none"> <li>• Built a machine learning prediction model to identify factors leading to academic success using data from local high schools</li> </ul>		
<b>Statistical Consultant</b>	<b>Wisers</b>	<b>Jan 2017-Feb 2017</b>
<ul style="list-style-type: none"> <li>• Guided the construction of a social media sentiment index on political candidates in Hong Kong</li> </ul>		
<b>Instructor and Organizer</b>	<b>UC San Diego</b>	<b>Nov 2016</b>
<ul style="list-style-type: none"> <li>• Taught two machine learning workshops to economics PhD students that covered basic concepts and different classification algorithm, and application using sklearn</li> </ul>		

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#### LANGUAGES AND SKILLS

- Programming: Python, R, SQL, Django, AWS
- Data Science: Machine Learning, Deep Learning, Machine Vision, Natural Language Processing
- Language English, Chinese, Japanese.