

EDUCATION

- 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

Research Scientist	Fiscalnote	2019-Present
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- Primary contributor to a data-to-text content generator, a tool that generates news snippets to expand state local legislature coverage.
- Technical work focused on machine learning engineering: NLP, Deep Learning, AWS, Python, rapid prototyping

Data Scientist	Pew Research Center	2017 - 2019
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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/Docker
- 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.

Fellow	Data Science for Social Good	2016
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- Built a machine learning prediction model to identify key risk factors of interacting with the juvenile criminal justice system for the Milwaukee public schools.
- Contributed to end-to-end data pipeline that is comprised of ETL, model training, validation, deployment and inference. Model performs 87% better than the baseline in identifying students at risk. Python/SQL/Command Line Tools

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

Analyst	BlackRock	2008-2010
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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

Engineering Intern	Intel	2006
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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

Reports

- **Men Appear Twice as Often as Women in News Photos on Facebook**, *May 2019* (with Stefan Wojcik, Brian Broderick and Adam Hughes)
Covered by: Adweek, Forbes, PCMag, Nieman Lab, Multichannel News, Washington Post, The Lily
- **Gender and Jobs in Online Image Search**, *Dec 2018* (with Stefan Wojcik, Brian Broderick and Adam Hughes)
Covered by: CNN, The Washington Post, Mercury News, USA Today, Mother Jones, Mercury News, East Bay Times, The Lily, MarketWatch

Academic Papers

- **Advertisers Capture: Evidence from Hong Kong** (Under Review)
 - 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
Covered By: Marginal Revolution
- **Measuring Subjectivity in History Textbooks** (R&R)
 - Write Python scripts to clean the text, count adjectives, calculate the ratio of positive to negative words and employ word embedding (word2vec)
Covered By: BBC
- **Political Shifts and Public Responses to Agency Action**, (with Michael Livermore, Vlad Eidelman)

Short Pieces

- **How far Americans live from the closest hospital differs by community type**, *Dec 2018* (with Brian Broderick and Skye Toor)
Covered by: CityLab, American Organization for Nursing Leadership, Mississippi Health Advocacy Program
- **What Google searches can tell us about Americans' interest in guns**, *Mar 2018*
- **There's a large gender gap in congressional Facebook posts about sexual misconduct**, *Feb 2018* (with Adam Hughes and Patrick Van Kessel)
- **After Las Vegas attack, Democrats in Congress were far more likely than Republicans to mention guns on Facebook**, *Oct 2017* (with Brad Jones, Dennis Quinn, Solomon Messing)
- **Highly ideological members of Congress have more Facebook followers than moderates do**, *Aug 2017* (with Adam Hughes)
Covered by: R-Blogger

Conferences and Invited Talks

- **2019**: APSA, AAPOR, ICA, IC2S2, World Bank, JP Morgan Chase Institute
- **2018**: APSA, APSA Computational Social Science Pre-Conference
- **2016**: Tobin Project

OTHER PROJECTS AND EXPERIENCES

Creator of Jicount.com		2019-
<ul style="list-style-type: none"> • Built a web platform that allows researchers to upload important milestones of their papers. 		
Quantitative Researcher	UC San Diego	Dec 2016-Apr 2017
<ul style="list-style-type: none"> • Built a machine learning prediction model to identify factors leading to academic success using data from local high schools 		
Statistical Consultant	Wisers	Jan 2017-Feb 2017
<ul style="list-style-type: none"> • Guided the construction of a social media sentiment index on political candidates in Hong Kong 		
Instructor and Organizer	UC San Diego	Nov 2016
<ul style="list-style-type: none"> • Taught two machine learning workshops to economics PhD students that covered basic concepts and different classification algorithm, and application using sklearn 		

LANGUAGES AND SKILLS

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