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## EXPERIENCE

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**Research Scientist/Senior NLP** **FiscalNote** **06/2019 - 04/2020**

**Data Scientist**

- Designed and built a natural language generator prototype system that provides news coverage on state legislation to monetize data as content. Est \$2mm/yr revenue. Built both frontend and backend components in Django. Deployed as internal service using Ansible. Worked cross-functionally with PM, Biz Dev and engineers.
- Influenced feature direction by applying NLP techniques on large text corpus (fine-tuning model in Pytorch on AWS SageMaker with GPU; topic modeling in R; exploratory data analysis with ElasticSearch and pandas; text classification with scikit-Learn, NLTK and spaCy).

**Data Scientist** **Pew Research Center Data Labs** **05/2017 - 05/2019**

- Led a team of 4 data scientists and engineers in applied machine learning projects. Technical contributions include implementing a transfer-learning model in Keras, building key parts of the production ETL pipeline with Python, exploratory data analysis and hypothesis testing in R.
- Project management responsibilities included setting weekly priorities to align team efforts and coordinating with external teams. Resulted in multiple highly cited publications and presentations in academic conferences.
- Expanded scope of answerable research questions by integrating external data sources with in-house survey; Conceptualized and developed a database that incorporate geographic attributes in survey design.

**Fellow** **Data Science for Social Good** **05/2016 - 08/2016**

- Contributed to an end-to-end machine learning data pipeline comprised of ETL, model training and validation, deployment and inference. Applied model to determine factors that elevate the risk of interacting with the criminal justice system among teens. Python/SQL/Command Line Tools.

**Teaching Assistant** **UC San Diego** **08/2012 - 04/2017**

- TA for 11 undergraduate courses on microeconomics and econometrics.

**Analyst** **BlackRock** **07/2008 - 06/2010**

- Supported internal and external users of BlackRock's risk management software system (Aladdin) via direct phone calls and emails; Maneuvered RDS to identify service issues using SQL and CLI tools.

**Engineering Intern** **Intel** **06/2006 - 12/2006**

- 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.

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## EDUCATION

- UC San Diego: PhD in Economics, 05/2017
- University of Tokyo: Master in Public Policy, (Japanese Government Scholarship, Fully Funded) 04/2012
- UC Berkeley: BEng in Industrial Engineering and Operations Research, Cum Laude, *Minor in Japanese* 12/2007

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## LANGUAGES AND SKILLS

- Programming: (Proficient) Python, R, SQL, Django, AWS, Git, ElasticSearch (Basic) Docker, Scala, Spark
- Data Science: Machine Learning, Causal Inference, NLP, Survey Methodology, Time Series Modeling, Regressions, Quasi-experimental methods
- Languages: English, Chinese, Japanese

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## PERSONAL PROJECTS

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- Jicount: A platform that allows users to upload academic papers to seek constructive feedback and allow them to track publication progress. Built from scratch using Django. Deployed to AWS.

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## RESEARCH

### Academic

- **Advertisers Capture: Evidence from Hong Kong** (Under Review)  
Covered By: Marginal Revolution
- **Measuring Subjectivity in History Textbooks** (R&R)  
Covered By: BBC
- **Political Shifts and Public Responses to Agency Action**, with Michael Livermore and Vlad Eidelman (Submitted)

### 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
- **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 and Solomon Messing)
- **Highly ideological members of Congress have more Facebook followers than moderates do**, *Aug 2017* (with Adam Hughes)  
Covered by: R-Blocker

### 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

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## AWARDS AND FELLOWSHIP

- Tobin Graduate Student Fellowship, *2016*
- Frontiers of Innovation Scholars Program Project Fellowship, *2015*
- Most Insightful Discovery, UCSD Big Pixel Hackathon, *2015*
- UCSD Graduate Summer Research Fellowship, *2013, 2014*
- UCSD Department of Economics CPhil Fellowship, *2013*
- University of Tokyo Best Student Award, *2012*