

# JAE YEON KIM

## Overview

- Computational social scientist using data science to advance social science research on diversity and inclusion.
- Extensive experience working with survey, experimental, administrative, and text data using statistical and machine learning methods.

Last updated on 2020-09-01.



## EDUCATION

- 2016  
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Present
- **University of California, Berkeley**  
PhD Candidate in Political Science Berkeley, California, USA
- Summer  
2019
- **Summer Institute in Computational Social Science**  
Participant (10% acceptance rate) Princeton University, Princeton, USA
- 2014  
|  
2016
- **University of California, Berkeley**  
MA in Political Science Berkeley, California, USA
- 2012
- **Korea University**  
BA in Political Science, Linguistics, and English Seoul, South Korea



## PROFESSIONAL EXPERIENCE

- May  
2019  
|  
Present
- **Data Science Fellow, Consultant, and Instructor**  
[Data-intensive Social Sciences Lab](#) UC Berkeley
- Consulted 50+ Berkeley faculty, students, and staff on applied statistics, machine learning, data wrangling, visualization, and database management
  - Developed five original data science workshops ([SQL for R Users](#), [R package development](#), [Advanced Data Wrangling in R](#), and [Efficient and Reproducible Project Management in R](#))
  - Taught programming fundamentals, data wrangling, machine learning, and project management
  - Organized and streamlined consulting and workshop production
  - Founded the working group on the bias in machine learning
- Spring  
2020
- **Data Science Education Program Fellow**  
[Data Science Education Program](#) UC Berkeley
- Served as research lead for the undergraduate students and project partners involved in 40+ [data science discovery projects](#)
  - Taught original [workshops](#) on project management, computational reproducibility, bias in machine learning, and data visualization
  - Published [an article](#) on project management in SAGE Ocean, an initiative from SAGE Publishing focusing on computational social science

## CONTACT INFO

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🌐 [github.com/jaeyk](https://github.com/jaeyk)

in [linkedin.com/jae-yeon-kim](https://linkedin.com/jae-yeon-kim)

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For more information, please  
contact me via email.

## COURSEWORK

Statistical and Causal Inference,  
Experimental Design, Survey  
Methods, Game Theory,  
Computational Social Science

Passed [Political Behavior](#) (social  
and cognitive psychology, survey  
and experimental design) field  
exam with distinction

## SKILLS

📊 **Quantitative:** Statistical and  
causal inference, Experimental and  
survey design

💻 **Computational:** Natural  
language processing, Machine  
learning, R (tidyr, dplyr, ggplot2,  
statistical packages), Python  
(pandas, scikit-learn), Git, SQL  
(PostgreSQL), NoSQL (MongoDB),  
Linux Command Line



## TEACHING EXPERIENCE

Fall 2020

### Research Workshop on Computational Tools for Digital Data Collection (graduate; original course) [GitHub]

Co-instructor

📍 UC Berkeley

Spring 2019

### An Introduction to Computational Tools and Techniques for Social Science Research (graduate; original course) [GitHub]

Lead Instructor

📍 UC Berkeley

Fall 2016

### Introduction to Empirical Analysis and Quantitative Methods (undergraduate)

Teaching Assistant

📍 UC Berkeley

- Received [the outstanding graduate student instructor award](#), which is given to less than 10% of Berkeley TAs



## SOFTWARE

**tidytweetjson**: R package for turning Tweet JSON files into a cleaned and wrangled dataset. The package takes 4.76 hours to turn 5 million tweets into a dataframe.

**tidyethnicnews**: R package for turning search results from one of the largest databases on ethnic newspapers and magazines published in the United States into a cleaned and wrangled dataset. The package takes 28 seconds to turn 5,685 articles into a dataframe.

**makereproducible**: R package for making a project computationally reproducible before sharing it

★ **Fellowships**: Democracy Visiting Fellowship, Ash Center for Democratic Governance and Innovation, Kennedy School, Harvard University (2020 - 2021, declined), D-Lab Data Science Fellowship, UC Berkeley (2020), Data Science Education Program Fellowship, UC Berkeley (2020), American Democracy Project Fellowship, UC Berkeley (2019), California Poverty and Socioeconomic Inequality Fellows Program, the Blum Initiative for Global and Regional Poverty Studies (2017), Berkeley Empirical Legal Studies Graduate Fellowship, Center for the Study of Law and Society, UC Berkeley (2017)



## RESEARCH EXPERIENCE

Summer 2020

Present

### Large-scale Twitter Analysis on COVID-19 and Anti-Asian Climate [GitHub]

PhD Candidate

📍 UC Berkeley

- Developed an [R package](#) that automates parsing a large Tweet JSON file (>5GB) into a cleaned and wrangled dataset
- Applied dynamic topic modeling to 1.4 million tweets and traced the rise of anti-Asian sentiment in the post-pandemic US
- Scheduled to present at the 2020 American Political Science Association annual meeting

Spring 2020

Present

### Intersectional Bias in Hate Speech and Abusive Language Detection Datasets [GitHub] [Preprint] [Slides]

PhD Candidate

📍 UC Berkeley

- Classified gender, racial, and party identities of the 100k tweets
- Demonstrated African American tweets were up to 3.7 times more likely to be labeled as abusive, and African American male tweets were up to 77% more likely to be labeled as hateful compared to the others
- Published the paper version in [Proceedings of the Fourteenth International Conference on Web and Social Media \(ICWSM\), Data Challenge Workshop](#)

🏆 **Awards**: Don T. Nakanishi Award for Distinguished Scholarship and Service in Asian Pacific American Politics, Western Political Science Association (2020), Outstanding Graduate Student Instructor Award, UC Berkeley (2016)

- Fall 2019  
|  
Present
- **Causal Inference and Machine Learning [GitHub] [Slides]**  
PhD Candidate 📍 UC Berkeley
    - Demonstrated how machine learning assists causal inference by combining text classification and interrupted time series design
    - Presented at [the joint Political Computational Social Science and Political Network 2020 Conference](#)
- 2018  
|  
Spring 2019
- **Natural Language Processing and Machine Learning [GitHub] [Preprint] [Slides]**  
PhD Candidate 📍 UC Berkeley
    - Developed an [R package](#) that automates parsing unstructured HTML files into a cleaned and wrangled dataset
    - Demonstrated unreliable training data generates weak predictions and extreme interpretations using 80k+ historical newspaper articles
    - Received [the Best Paper Award in Asian Pacific American Politics](#) from the Western Political Science Association (2020)
    - Authored a preprint, which was conditionally accepted at the [Journal of Computational Social Science](#)
- 2016  
|  
2018
- **Statistical Modeling of Time Series Data [GitHub] [Preprint]**  
PhD Candidate 📍 UC Berkeley
    - Examined how social policy influenced community organizing among Asian Americans and Latinx by creating an original [organizational dataset](#) and modeling time-series data
    - Authored a preprint, which was invited to Revise and Resubmit at [Political Research Quarterly](#)
- 2019  
|  
Present
- **Survey and Experimental Research [GitHub]**  
PhD Candidate 📍 UC Berkeley
    - Designed a within-subject experiment and embedded it in a California-wide survey to investigate how different racial groups interpret questions on racial solidarity differently
- Summer 2018
- **Survey Research [GitHub]**  
Graduate Student Researcher 📍 UC Berkeley
    - Cleaned and wrangled the largest panel survey data on Asian Americans and conducted factor and regression analysis

## ORGANIZING EXPERIENCE

- **Summer Institute in Computational Social Science in the San Francisco Bay Area**  
Co-organizer 📍 August 2019 - July 2020
  - Raised 50k+, reviewed 100+ applicants and selected 20 participants
  - Developed close partnerships with nonprofits (e.g., Code for America, DonorsChoose, HopeLab)
  - Designed the curriculum, guided the project development and developed the evaluation criteria