

Shan Jiang

Computational Social Science · Social Computing · Online Misinformation · Algorithmic Bias
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Education

Ph.D. in Computer Science

Northeastern University

- Advisor: Christo Wilson

Expected 2021

Boston, MA

B.B.A. in Information Management and Information Systems

Beijing University of Posts and Telecommunications

- GPA: 92.5/100 Rank: 1/46

2016

Beijing, China

Publications

Linguistic Signals under Misinformation and Fact-Checking: Evidence from User Comments on Social Media

CSCW'18

Shan Jiang, and Christo Wilson

Auditing Partisan Audience Bias within Google Search

CSCW'18

Ronald E Robertson, Shan Jiang, Kenneth Joseph, Lisa Friedland, David Lazer, and Christo Wilson

On Ridesharing Competition and Accessibility: Evidence from Uber, Lyft, and Taxi

WWW'18

Shan Jiang, Le Chen, Alan Mislove, and Christo Wilson

Conflicts in Overlay Environments: Inefficient Equilibrium and Incentive Mechanism

KSII-TIIS'16

Jianxin Liao, Jun Gong, Shan Jiang, Tonghong Li, and Jingyu Wang

Interactions of Overlays and Traffic Engineering: Equilibrium and Cooperation without Payment

GLOBECOM'15

Shan Jiang, Jun Gong, Jingyu Wang, Jianxin Liao, and Tonghong Li

Competitive Equilibrium and Stable Coalition in Overlay Environments

LCN'15

Shan Jiang, Jianxin Liao, Jun Gong, Jingyu Wang, and Tonghong Li

Combination Feature for Image Retrieval in the Distributed Datacenter

ICPADS'14

Di Yang, Jianxin Liao, Qi Qi, Jingyu Wang, Haifeng Sun, and Shan Jiang

Selected Projects

Is YouTube's Content Moderation Biased, or Not?

Jan. 2018 - Sep. 2018

The claim that moderation is biased against conservatives is proven to be a misperception from correlation to causation. | Submitted to CHI'19.

- Collected a comprehensive dataset of the misinformation ecosystem surrounding YouTube, including veracity, bias, engagement, and comments;
- Performed statistical tests to show the difference in moderation likelihood for user comments under left- and right- leaning videos;
- Used a causal model (propensity score matching) to show that the above difference is not caused by political leaning but other confounders.
- Simulated model dynamics under a variety of hypotheses for robustness checks.

How do "Fake News" and Fact-Checking Affect People?

Nov. 2017 - Aug. 2018

People get touchy when commenting on "fake news" and misinformation, but also touchy about the truth. | Published at CSCW'18.

- Implemented crawlers to collect fact-check articles from Snopes and PolitiFact, and user comments from Facebook, Twitter and Youtube;
- Built a topical lexicon ComLex using a hybrid method of unsupervised learning (word2vec, spectral clustering) and human evaluation;
- Performed statistical tests to show different word usages in user comments for truthful/fake news and before/after fact-check;
- Built predictive models to show that such difference in user comments can help with fake news detection.

Do Google's Search Engine Result Pages Have A Partisan Bias?

Sep. 2016 - Aug. 2018

Top-rank search results show less left-leaning bias than low-rank ones. | Published at CSCW'18.

- Recruited 200+ participants to install browser extensions that enabled us to collect search data from their computers;
- Calculated partisan bias score based on a dataset of 100+ million Tweets using Apache Spark; (Visualization: polarshare.shanjiang.me)
- Performed statistical tests to show the correlation between partisan bias and rankings in Google's search engine result pages.

Is Ridesharing Services Equally Accessible?

Sep. 2016 - Apr. 2018

The quality of Uber and Lyft's services worsens in neighborhoods with high minority ratios or low incomes. | Published at WWW'18.

- Intercepted Uber and Lyft's mobile traffic using man-in-the-middle proxy and built structured requests for data collection;
- Implemented crawlers to collect driver's trajectory data from Uber and Lyft in San Francisco and New York City for 2 months;
- Analyzed 10TB+ data using Apache Spark to discover spatiotemporal patterns of ridesharing services; (Visualization: tncstoday.sfcta.org)
- Used a spatial econometric model to show the inequality of ridesharing accessibility.

Miscellaneous

Skills

Python, Java, Javascript, C/C++, Matlab, R, SQL, etc. | Apache Spark, Linux, Vega Lite, etc.

Reviewer

CHI'19, CSCW'18, WWW'18 (external)

September 25, 2018

Shan Jiang