Julie Jiang *Forbes 30 under 30 (Science)*

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I study **computational social science**, developing ML techniques to empirically study human behavior on large-scale online platforms for **social good**. I am graduating (PhD) in early 2024 and seeking **full-time industry opportunities**.

Education

University of Southern California (USC)	**Los Angeles, CA**
PhD Candidate in Computer Science—GPA: 4.00/4.00	Aug 2019—May 2024
MS in Computer Science—GPA: 4.00/4.00	2023

Dissertation: "Socially-Infused Content Mining of Online Human Behavior"
Advisor: Dr. Emilio Ferrara

Tufts University	**Medford, MA**
BS in Computer Science and Mathematics—GPA 3.72/4.00 *magna cum laude*	2015—2019

Industry Experience

Spotify Research — **Virtual**
Research Intern, Human in AI, Personalization — Summer 2023
- Understanding of the consumption of new music releases from the perspective of genres (**WebSci 2024**)

TikTok/ByteDance — **Virtual**
Data Science Intern, Applied ML — Fall 2022
- Impact of the hierarchical diversity of ads on user engagement and retention on Tiktok

Snap Research — **Santa Monica, CA**
Research Intern, Computational Social Science
- The homophilous, reciprocal, and contagious use of Bitmojis on Snapchat (**CHI 2023**) — Summer 2022
- Weather and impacts expressed sentiment on Snapchat stories (**ICWSM 2022**) — May—Nov 2021

Google — **Mountain View, CA**
Software Engineering Intern, Adwords API — Summer 2019

Bose Corporation — **Framingham, MA**
Software Engineering Intern — Summer 2018

Research Experience

USC Information Sciences Institute (ISI) — **Marina del Rey, CA**
Research Assistant
- DARPA INCAS-UPSCALE (PI: Dr. Emilio Ferrara): Universal population segmentation and characterization algorithms for online environments — 2021—2024
- DARPA TAILOR-Bespoke (PI: Dr. Kristina Lerman): Learning bespoke interventions for performance optimizations in heterogeneous users — 2019—2021

Tufts University — **Medford, MA**
Research Assistant — 2018—2019
- Graph embedding models for biochemical reaction prediction (Dr. Liping Liu and Dr. Soha Hassoun)

Publications *equal contribution

HIGHLIGHTS ♦ Google Scholar
- Published 14 first-authored papers (16 total publications)
- 360+ citations, H-index = 6
- Publish at top conferences (CHI, TheWebConf, ICWSM, CSCW) and journals (HBET, JMIR, Bioinformatics)

Conferences

C10. Jinyi Ye, Luca Luceri, Julie Jiang, and Emilio Ferrara. **Susceptibility to Unreliable Information Sources: Swift Adoption with Minimal Exposure.** To appear at *The Web Conference* (**TheWebConf '24**). Preprint

C9. Julie Jiang, Aditiya Ponnada, Ang Li, Ben Lacker, and Samuel F. Way. **A Genre-Based Analysis of New Music Streaming at Scale.** To appear at the *ACM Web Science Conference* (**WebSci '24**).

C8. Julie Jiang, Xiang Ren, and Emilio Ferrara. **Retweet-BERT: Political Leaning Detection Using Language Features and Information Diffusion on Social Networks.** In *Proceedings of the International AAAI Conference on Web and Social Media,* 17(1), 459-469 (**ICWSM '23**). Paper

C7. Julie Jiang, Ron Dotsch, Mireia Triguero Roura, Yozen Liu, Vítor Silva, Maarten W. Bos, and Francesco Barbieri. **Reciprocity, Homophily, and Social Network Effects in Pictorial Communication: A Case Study of Bitmoji Stickers.** In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (**CHI '23**). Paper

C6. Julie Jiang, Jesse Thomason, Francesco Barbieri, and Emilio Ferrara. **Geolocated Social Media Posts are Happier: Understanding the Characteristics of Check-in Posts on Twitter.** In *Proceedings of the 15th ACM Web Science Conference* (**WebSci '23**). Paper arXiv

C5. Julie Jiang, Kristina Lerman, and Emilio Ferrara. **Zero-Shot Meta-Learning for Small-Scale Data from Human Subjects.** *The 11th IEEE International Conference on Healthcare Informatics* (**ICHI '23**). Paper arXiv

C4. Julie Jiang, Nils Murrugarra-Llerena, Maarten W. Bos, Yozen Liu, Neil Shah, Leonardo Neves, and Francesco Barbieri. **Sunshine with a Chance of Smiles: Weather Impacts Expressed Sentiment on Social Media**. *The 16th International AAAI Conference on Web and Social Media, 2022* (**ICWSM '22**). Paper

C3. Alexander J. Bisberg*, Julie Jiang*, Yilei Zeng, Emily Chen, and Emilio Ferrara. **The Gift That Keeps on Giving: Generosity is Contagious in Multiplayer Online Games.** In *Proceedings of the ACM on Human-Computer Interaction (PACM HCI)*, 2022, 6, CSCW2 (**CSCW '22**). Paper arXiv

C2. Julie Jiang, Danaja Maldeniya, Kristina Lerman, and Emilio Ferrara. **The Wide, the Deep, and the Maverick: Types of Players in Team-based Online Games.** In *Proceedings of the ACM on Human-Computer Interaction (PACM HCI)*, 2021, 5, CSCW1 (**CSCW '21**). Paper Video

C1. Yuzi He, Christopher Tran, Julie Jiang, Keith Burghadt, Emilio Ferrara, Elena Zheleva, and Kristina Lerman. **Heterogeneous Effects of Software Patches in a Multiplayer Online Battle Arena Game.** In *Proceedings of The 16th International Conference on the Foundations of Digital Games* (**FDG '21**). Paper

Journals

J4. Emily Chen*, Julie Jiang*, Ho-Chun Herbert Chang, Goran Murić, and Emilio Ferrara. **Charting the Information and Misinformation Landscape to Characterize Misinfodemics on Social Media: COVID-19 Infodemiology Study at a Planetary Scale.** *JMIR Infodemiology* 2022; 2(1):e32378. Paper

J3. Julie Jiang, Xiang Ren, and Emilio Ferrara. **Social Media Polarization and Echo Chambers in the Context of COVID-19: Case Study.** *JMIRx Med* 2021; 2(3):e29570. Paper

J2. Julie Jiang, Emily Chen, Shen Yan, Kristina Lerman, and Emilio Ferrara. **Political Polarization Drives Online Conversations About COVID-19 in the United States.** *Human Behavior and Emerging Technologies* 2(3), 200—211, 2020. Paper [cited > 190 times]

J1. Julie Jiang, Li-Ping Liu, and Soha Hassoun. **Learning Graph Representations of Biochemical Networks and Its Application to Enzymatic Link Prediction.** *Bioinformatics* 37(6), 793—799, 2021. Paper

Workshops

W1. Julie Jiang, Emily Chen, Luca Luceri, Goran Murić, Francesco Pierri, Ho-Chun Herbert Chang, and Emilio Ferrara. **What are Your Pronouns? Examining Gender Pronoun Usage on Twitter.** In *Workshop Proceedings of the 17th International AAAI Conference on Web and Social Media* (**ICWSM '23**)**.** Paper arXiv

W2.   Julie Jiang, Kristina Lerman, and Emilio Ferrara. **Individualized Context-Aware Embeddings for Online Games Predictions.** *20th IEEE International Conference on Data Mining* (**ICDM '20**), *Workshop on High Dimensional Data Mining.* Paper arXiv

PRESENTATIONS

5.   Rebecca Dorn, Negar Mokhberian, Julie Jiang, Jeremy Abramson, Fred Morstatter, and Kristina Lerman. **Non-Binary Gender Expression in Online Interactions.** *16th International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation* (**SBP-BRiMS '23**). Preprint

4.   Julie Jiang, Nils Murrugarra-Llerena, Maarten W. Bos, Yozen Liu, Neil Shah, Leonardo Neves, and Francesco Barbieri. **Sunshine with a Chance of Smiles: Weather Impacts Expressed Sentiment on Social Media**. *2022 International Society for Research on Emotion* (**ISRE**), oral presentation.

3.   Emily Chen*, Julie Jiang*, Fred Morstatter, Kristina Lerman, and Emilio Ferrara. **Ageism in Traffic Policing.** *6th International Conference on Computational Social Science* (**IC2S2**), oral presentation. Extended Abstract

2.   Julie Jiang, Li-Ping Liu, and Soha Hassoun. **Enzymatic Link Prediction for Biochemical Route Synthesis.** *2020 MIT AI Powered Drug Discovery and Manufacturing* (**AIDM**). Poster

1.   Julie Jiang, Li-Ping Liu, and Soha Hassoun. **Predicting Reactions for Biochemical Networks Using Graph Embeddings.** *2019 Machine Learning in Computational Biology* (**MLCB**), co-located with NeurIPS '19. Poster

WORK-IN-PROGRESS

●   Julie Jiang, Luca Luceri, Joseph B. Walther, and Emilio Ferrara. **Social Approval and Network Homophily as Motivators of Online Toxicity.** Preprint

●   Julie Jiang and Emilio Ferrara. **Social-LLM: Modeling User Behavior at Scale using Language Models and Social Network Data**. Preprint

●   Julie Jiang, Luca Luceri, and Emilio Ferrara. **Moral Values Underpinning COVID-19 Online Communication Patterns.** Preprint

●   Rebecca Dorn, Negar Mokhberian, Julie Jiang, Jeremy Abramson, Fred Morstatter, and Kristina Lerman. **Non-Binary Gender Expression in Online Interactions.**

●   Yulin Yu, Julie Jiang, and Paramveer Dhillon. **Seeing the Forest for the Trees: Characterizing Online Conversations Structure Across Subreddits.**

●   Mireia Triguero Roura, Maarten W. Bos, Francesco Barbieri, Julie Jiang, Yozen Liu, and Ron Dotsch. **The Ties that Bound: Online Pictorial Communication Reveals Cultural Boundaries In the World.**

Teaching

USC
Teaching Assistant, **CSCI591** CS Research Colloquium   Fall 2022 & Spring 2023

Tufts University
Teaching Fellow (Head TA), **COMP11** Intro to Computer Science   Spring 2018, Fall 2018, & Spring 2019
Teaching Assistant, **COMP105** Programming Languages   Spring 2018
Teaching Assistant, **COMP15** Data Structures   Spring 2017 & Fall 2017
Grader, **MATH32** Calculus I and **MATH34** Calculus II   Spring 2017 & Fall 2017
Tutor, **MATH** Calculus   Fall 2016 & Spring 2017

Awards & Honors

Forbes 30 Under 30 (Science)	2024
USC PhD Achievement Award ($5,000, award to 6 PhD students @ USC w/ exceptional academic profile)	2024
Phi Beta Kappa (Honor Society(	2024
ACM WebSci Student Travel Grant	2023
Snap Research Fellowship ($10,000)	2022

USC Graduate School nomination for the Google PhD Fellowship   2021
USC Viterbi nomination for the Microsoft PhD Fellowship   2021
USC ISI Distinguished Graduate Student Research Fellowship ($5,000)   2019—2020
USC Viterbi Travel Grant for Graduate Engineering Preview Day   2019
Tufts Tisch Summer Scholars Fellowship   2018
Tufts University Dean's List   2015—2019

Media Coverage

USC Viterbi School of Engineering, 2024. [Julie Jiang Receives Honor as a 2024 Forbes 30 Under 30 in Science](#)

USC Information Sciences Institute, 2024. [Julie Jiang Receives Honor as a 2024 Forbes 30 Under 30 in Science](#)

The Conversation, 2023. [Online 'likes' for toxic social media posts prompt more – and more hateful – messages](#)

Phys.org, 2023. [Online 'likes' for toxic social media posts prompt more – and more hateful – messages](#)

New York Post, 2023. [Social media trolls are inspired by 'likes' — not hate: study](#)

Forbes, 2023. [Julie Jiang - 2024 30 Under 30 (Science)](#)

PsyPost, 2021. [Segregated communities of polarized Twitter users are shaping online conversations about COVID-19](#)

Professional Service

Reviewing

The ACM Web Conference (**TheWebConf**/WWW): 2020, 2021, 2023, 2024

The ACM Conference on Human Factors in Computing Systems (**CHI**): 2023

The ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW**): 2023

The International AAAI Conference on Web and Social Media (**ICWSM**): 2022–2024

The ACM Web Science Conference (**WebSci**): 2020–2024

International Journal of Communication (**IJoC**): 2022

Conference for Truth and Trust Online (**TTO**): 2021

International Conference on Complex Networks (**CompleNet**): 2020

PLOS ONE: 2023

Mentoring

Jinyi Ye (MS @ USC Annenberg): 2023

Admissions

USC Viterbi CS PhD Admissions: 2021, 2022

Tufts Admissions Network: 2020, 2022