

Julie Jiang

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I am interested in learning about **people** online—how user preferences, social cues, and contextual factors influence and drive user behavior online. I combine expertise from computer science and social science and adopt a variety of deep learning, network analysis, NLP/LLMs, and statistical methods.

Education

University of Southern California (USC)

PhD Candidate in Computer Science—GPA: 4.00/4.00

Dissertation: “Socially-infused Content Mining of Online Human Behavior”

Advisor: Dr. Emilio Ferrara

Los Angeles, CA

Aug 2019—May 2024

Tufts University

BS in Computer Science and Mathematics—GPA 3.72/4.00 *magna cum laude*

Medford, MA

2015—2019

Industry Experience

Spotify Research

Research Intern, Human in AI, Personalization

- Understanding of the consumption of new music releases from the perspective of genres

Virtual

Summer 2023

TikTok/ByteDance

Data Science Intern, Applied ML

- Impact of the hierarchical diversity of ads on user engagement and retention on Tiktok

Virtual

Fall 2022

Snap Research

Research Intern, Computational Social Science

- The homophilous, reciprocal, and contagious use of Bitmojis on Snapchat (**CHI 2023**)
- Weather and impacts expressed sentiment on Snapchat stories (**ICWSM 2022**)

Santa Monica, CA

Summer 2022

May—Nov 2021

Google

Software Engineering Intern, Adwords API

Mountain View, CA

Summer 2019

Bose Corporation

Software Engineering Intern

Framingham, MA

Summer 2018

Research Experience

USC Information Sciences Institute (ISI)

Research Assistant

- DARPA INCAS-UPSCALE (PI: Dr. Emilio Ferrara): Universal population segmentation and characterization algorithms for online environments
- DARPA TAILOR-Bespoke (PI: Dr. Kristina Lerman): Learning bespoke interventions for performance optimizations in heterogeneous users

Marina del Rey, CA

2021—2023

2019—2021

Tufts University

Research Assistant

- Graph embedding models for biochemical reaction prediction (Dr. Liping Liu and Dr. Soha Hassoun)

Medford, MA

2018—2019

Publications **equal contribution*

Citations: 282

CONFERENCES

- C9. [Julie Jiang](#), Xiang Ren, and Emilio Ferrara. **Retweet-BERT: Characterizing Echo Chambers by Leveraging Language Features and Information Diffusion in Social Media**. In *Proceedings of the International AAAI Conference on Web and Social Media*, 17(1), 459-469 (ICWSM '23). [Paper](#)

September 2023

Julie Jiang

- C8. [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](#)
- C7. [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](#)
- C6. [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)*. [arXiv](#)
- C5. Rebecca Dorn, Negar Mokhberian, [Julie Jiang](#), Jeremy Abramson, Fred Morstatter, and Kristina Lerman. **Non-Binary Gender Expression in Online Interactions.** To appear at the *16th International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRIMS '23)*. [Preprint](#)
- 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 > 150 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](#)
- 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

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](#), Aditiya Ponnada, Ang Li, Ben Lackner, and Samuel F. Way. **Understanding the Consumption of New Music Releases From the Perspectives of Genres**.
- [Julie Jiang](#), Luca Luceri, Joseph B. Walther, and Emilio Ferrara. **Socially-Motivated Online Hate Speech**.
- 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

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 (\$5K)	2019–2020
USC Viterbi Travel Grant for Graduate Engineering Preview Day	2019
Tufts Tisch Summer Scholars Fellowship	2018
Tufts University Dean's List (7/8 semesters)	2015–2019

Professional Service

Reviewing

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

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**): 2020–2023

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

Media Coverage

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