

# 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 2022*

### 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 for Dr. Li-Ping Liu and Dr. Soha Hassoun*

- Graph embedding models for biochemical reaction prediction

**Medford, MA**

*2018—2019*

## 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](#)
- 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 15<sup>th</sup> 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 11<sup>th</sup> IEEE International Conference on Healthcare Informatics (ICHI '23)*. [arXiv](#)
- C5. Rebecca Dorn, Negar Mokherian, [Julie Jiang](#), Jeremy Abramson, Fred Morstatter, and Kristina Lerman. **Non-Binary Gender Expression in Online Interactions**. To appear at the *16<sup>th</sup> 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 16<sup>th</sup> 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 16<sup>th</sup> 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](#), Ang Li, Aditiya Ponnada, Ben Lacker, Samuel F. Way. **Understanding the Consumption of New Music Releases From the Perspectives of Genres**.
- [Julie Jiang](#), Luca Luceri, Joseph B. Walther, Emilio Ferrara. **Socially-Motivated Online Hate Speech**.
- Yulin Yu, [Julie Jiang](#), 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

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### 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

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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

## Professional Service

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### 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, 2023, 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

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