

Julie Jiang

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I am interested in learning about **people**—how user preferences, social cues, and contextual factors influence and drive user behavior—in online settings such as **social media** and **multiplayer games**. I adopt a variety of deep learning, network analysis, natural language processing, and statistical methods.

Education

University of Southern California (USC) Los Angeles, CA	2019—2024
<i>PhD Candidate in Computer Science</i> —GPA: 4.00/4.00	(expected)
Research interests: computational social science & machine learning	
Advisor: Dr. Emilio Ferrara	
Tufts University Medford, MA	
<i>BS in Computer Science and Mathematics</i> —GPA 3.72/4.00 <i>magna cum laude</i>	2015—2019

Experience

Research Intern at TikTok/ByteDance Virtual, CA	Fall 2022
<ul style="list-style-type: none">Applied Machine Learning teamAnalyzed how the hierarchical diversity of ads is related to user engagement	
Research Intern at Snap Research Santa Monica, CA	Summer 2022
<ul style="list-style-type: none">Advised by Dr. Francesco Barbieri in the Computational Social Science TeamReciprocity, homophily, and social network effects of Bitmoji stickers usage on Snapchat (paper published in CHI 2023)	
Research Assistant at USC Information Sciences Institute (ISI) Marina del Rey, CA	2021—2022
<ul style="list-style-type: none">DARPA INCAS-UPSCALE (PI: Dr. Emilio Ferrara): Universal population segmentation and characterization algorithms for online environments	
Research Intern at Snap Research Santa Monica, CA	May—Nov 2021
<ul style="list-style-type: none">Advised by Dr. Francesco Barbieri in the Computational Social Science TeamAnalyzed the contextual impact (time, location, and weather) on sentiment expressed in Snapchat stories (paper published in ICWSM 2023)	
Research Assistant at USC Information Sciences Institute (ISI) Marina del Rey, CA	2019—2021
<ul style="list-style-type: none">DARPA TAILOR-Bespoke (PI: Dr. Kristina Lerman): Learning bespoke interventions for performance optimizations in heterogeneous users	
Software Engineering Intern at Google Mountain View, CA	Summer 2019
<ul style="list-style-type: none">Adwords API Team	
Research Assistant at Tufts University Medford, MA	2018—2019
<ul style="list-style-type: none">Advised by Dr. Li-Ping Liu and Dr. Soha HassounDeveloped graph embedding models for biochemical molecular reaction prediction (paper published in Bioinformatics)	

- Consumer electronics advanced development division
- Developed deep neural network to separate noise from audio signals

Selected Publications *equal contribution

- 2023 **Julie Jiang**, Ron Dotsch, Mireia Triguero Roura, Yozen Liu, Vítor Silva, Maarten W. Bos, and CHI Francesco Barbieri. **Reciprocity, Homophily, and Social Network Effects in Pictorial Communication: A Case Study of Bitmoji Stickers.** To appear at *The 2023 ACM CHI Conference on Human Factors in Computing Systems (CHI '23)*. [Preprint](#)
- 2023 **Julie Jiang**, Xiang Ren, and Emilio Ferrara. **Retweet-BERT: Characterizing Echo Chambers by ICWSM Leveraging Language Features and Information Diffusion in Social Media.** To appear at *The 17th International AAAI Conference on Web and Social Media (ICWSM '23)*. [Preprint](#)
- 2022 Alexander J. Bisberg*, **Julie Jiang***, Yilei Zeng, Emily Chen, and Emilio Ferrara. **The Gift That Keeps CSCW on Giving: Generosity is Contagious in Multiplayer Online Games.** *Proceedings of the ACM on Human-Computer Interaction (PACM HCI)*, 2022, 6, CSCW2 (CSCW '22). [Paper](#) [arXiv](#)
- 2022 **Julie Jiang**, Nils Murrugarra-Llerena, Maarten W. Bos, Yozen Liu, Neil Shah, Leonardo Neves, and ICWSM Francesco Barbieri. **Sunshine with a Chance of Smiles: Weather Impacts Expressed Sentiment on Social Media.** *Proceedings of The 16th International AAAI Conference on Web and Social Media (ICWSM '22)*. [Paper](#)
- 2021 **Julie Jiang**, Xiang Ren, and Emilio Ferrara. **Social Media Polarization and Echo Chambers in the JMIR Context of COVID-19: Case Study.** *JMIRx Med* 2021; 2(3):e29570. [Paper](#)
- 2021 **Julie Jiang**, Danaja Maldeniya, Kristina Lerman, and Emilio Ferrara. **The Wide, the Deep, and the CSCW Maverick: Types of Players in Team-based Online Games.** *Proceedings of the ACM on Human-Computer Interaction (PACM HCI)*, 2021, 5, CSCW1 (CSCW '21). [Paper](#) [Video](#)
- 2020 **Julie Jiang**, Emily Chen, Shen Yan, Kristina Lerman, and Emilio Ferrara. **Political Polarization HBET Drives Online Conversations About COVID-19 in the United States.** *Human Behavior and Emerging Technologies* 2(3), 200—211, 2020. [Paper](#) [cited > 150 times]

Other Publications

- 2023 **Julie Jiang**, Kristina Lerman, and Emilio Ferrara. **Zero-Shot Meta-Learning for Small-Scale Data ICHI from Human Subjects.** To appear at *The 11th IEEE International Conference on Healthcare Informatics (ICHI '23)*. [Preprint](#)
- 2023 **Julie Jiang**, Jesse Thomason, Francesco Barbieri, and Emilio Ferrara. **Geolocated Social Media WebSci Posts are Happier: Understanding the Characteristics of Check-in Posts on Twitter.** To appear at *The 15th ACM Web Science Conference (WebSci '23)*. [Preprint](#)
- 2022 Emily Chen*, **Julie Jiang***, Ho-Chun Herbert Chang, Goran Murić, and Emilio Ferrara. **Charting the JMIR 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](#)

- 2021 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.** *Proceedings of The 16th International Conference on the Foundations of Digital Games (FDG '21)*. [Paper](#)
- 2020 [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](#)
- 2020 [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](#)

Preprints

- 2022 Rebecca Dorn, Jeremy Abramson, [Julie Jiang](#), Kristina Lerman. **Gender and Expression in Online Interactions.**
- 2022 [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.** [Preprint](#)

Presentations

- 2022 [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.
- 2020 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](#)
- 2020 [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](#)
- 2019 [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](#)

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

Snap Research Fellowship (\$10K)

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	2019
Tufts University Dean's List (7/8 semesters)	2015—2019

Professional Service

Reviewing

The ACM Web Conference (**TheWebConf**/WWW): 2020, 2021, 2023 (PC)
The International AAAI Conference on Web and Social Media (**ICWSM**): 2022, 2023
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 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

Admissions

USC Viterbi CS PhD Admissions: 2021, 2022
Tufts Admissions Network: 2020, 2022

Media Coverage

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