

Julie Jiang

Forbes 30 under 30 (Science)

✉ juliejjiang112@gmail.com

🌐 julie-jiang.github.io

in julie-jiang

📄 Google Scholar

✂ @_julie_jiang

Education

University of Southern California (USC)

PhD Candidate in Computer Science—GPA: 4.00/4.00

MS in Computer Science—GPA: 4.00/4.00

Dissertation: Socially-Informed Content Analysis of Online Human Behavior

Advisor: Dr. Emilio Ferrara

Los Angeles, CA

Aug 2019—May 2024

2023

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 lens of genres (**WebSci 2024**)

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—2024

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*

HIGHLIGHTS Google Scholar

- Published 14 first-authored papers (16 total publications)
- 400 citations, H-index = 7
- Publish at top conferences (CHI, TheWebConf, ICWSM, CSCW) and journals (HBET, JMIR, Bioinformatics)

CONFERENCES

1. 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 2024)*. [Preprint](#)
2. [Julie Jiang](#), Aditiya Ponnada, Ang Li, Ben Lacker, and Samuel F. Way. **A Genre-Based Analysis of New Music Streaming at Scale.** In *ACM Web Science Conference (WebSci 2024)*. [Paper](#) [Spotify Blog](#)
3. [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 2023**). [Paper](#)
4. [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 2023)*. [Paper](#)
5. [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 2023)*. [Paper](#) [arXiv](#)
6. [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 2023)*. [Paper](#) [arXiv](#)
7. [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 2022)*. [Paper](#)
8. 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 2022**). [Paper](#) [arXiv](#)
9. [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 2021**). [Paper](#) [Video](#)
10. Yuzi He, Christopher Tran, [Julie Jiang](#), Keith Burghardt, 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 2021)*. [Paper](#)

JOURNALS

11. 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](#)
12. [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](#)
13. [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 > 200 times]
14. [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

15. [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 2023)*. [Paper](#) [arXiv](#)

16. [Julie Jiang](#), Kristina Lerman, and Emilio Ferrara. **Individualized Context-Aware Embeddings for Online Games Predictions**. *20th IEEE International Conference on Data Mining (ICDM 2020), Workshop on High Dimensional Data Mining*. [Paper arXiv](#)

PRESENTATIONS

- [Julie Jiang](#), Luca Luceri, Joseph B. Walther, and Emilio Ferrara. **Social Approval and Network Homophily as Motivators of Online Toxicity**. ShowCAIS 2024 by The USC Center for AI in Society. [Poster](#)
- [Julie Jiang](#), Luca Luceri, and Emilio Ferrara. **Moral Values Underpinning COVID-19 Online Communication Patterns**. ShowCAIS 2024 by The USC Center for AI in Society, poster presentation. [Poster](#)
- 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, 2023 (SBP-BRiMS 2023)*. [Paper](#)
- [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**. *International Society for Research on Emotion (ISRE)*, 2022, oral presentation.
- Emily Chen*, [Julie Jiang](#)*, Fred Morstatter, Kristina Lerman, and Emilio Ferrara. **Ageism in Traffic Policing Activity**. *6th International Conference on Computational Social Science (IC2S2)*, 2020, oral presentation. [Extended Abstract](#)
- [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](#)
- [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**. [arXiv SSRN](#)
- [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**.

Invited Talks

- **Socially-Informed Content Analysis of Online Human Behavior**
Guest lecture, DSCI 549: Introduction to Computational Thinking and Data Science, USC. April 23, 2024.
- **Insights From Social Network Data for Mitigating Online Harm**
ShowCAIS, USC. April 19, 2024.

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, awarded 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

- Spotify Research, 2024. [How do people stream newly released music?](#)
- Presse-citron, 2024. [This Study Reveals What Makes People Become Awful on the Internet](#)
- Podcast interview with AI/insider, 2024. [Link](#)
- Yahoo Built by Girls, 2024. [International Women's Day 2024: Celebrating and Elevating Women in STEM](#)
- 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](#)
- Fast Company, 2023. [Liking toxic social media posts prompts 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
- The ACM Transactions of the Web (**TWEB**): 2024
- **PLOS ONE**: 2023
- International Journal of Communication (**IJoC**): 2022
- Conference for Truth and Trust Online (**TTO**): 2021
- International Conference on Complex Networks (**CompleNet**): 2020

Mentoring

- Jinyi Ye : 2023-2024 (MS @ USC Annenberg. Next: PhD @ USC CS)

Admissions

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