# 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-March 2024

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

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** Summer 2019

Software Engineering Intern, Adwords API **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

2021-2023

• 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 13 first-authored papers (15 total publications)
- 320+ citations, H-index = 6
- Publish at top conferences (ICWSM, CSCW, CHI) and journals (HBET, JMIR, Bioinformatics)

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## **CONFERENCES**

- C9. 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
- 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 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
- 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\*, Yååilei 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. <u>Paper</u>
- 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 > 180 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

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#### **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, Luca Luceri, Joseph B. Walther, and Emilio Ferrara. Social Approval and Network Homophily as Motivators of Online Toxicity. <u>Preprint</u>
- Jinyi Ye, Luca Luceri, Julie Jiang, and Emilio Ferrara. Susceptibility to Unreliable Information Sources: Swift Adoption with Minimal Exposure. Preprint
- Julie Jiang, Aditiya Ponnada, Ang Li, Ben Lacker, and Samuel F. Way. **Understanding the Consumption of New Music** Releases From the Perspectives of Genres.
- 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**

Forbes 30 Under 30 (Science)	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 (\$5K)	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

Forbes 2023. Julie Jiang - 2024 30 Under 30 (Science)

PsyPost 2021. Segregated communities of polarized Twitter users are shaping online conversations about COVID-19

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# **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**): 2020–2023 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

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