Julie Jiang

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I am interested in learning about **people**–how user preferences, social cues, and external contextual factors influence and drive user behavior–in online **social media** and **multiplayer games.** I adopt a variety of deep learning, graph-based learning, natural language processing, and statistical methods to analyze the dynamics of human behavior.

Education

University of Southern California (USC) — Los Angeles, CA
Ph.D. Candidate in Computer Science—GPA: 4.00/4.00 — 2019—2024 (expected)
Research interests: machine learning & computational social science
Advisor: Dr. Emilio Ferrara
- PhD Qualifying Exam | Committee: Dr. Emilio Ferrara, Dr. Kristina Lerman, Dr. Xiang Ren, Dr. Salman Avestimehr, and Dr. Bistra Dilkina — Sep 2021

Tufts University — Medford, MA
B.S. Computer Science and Mathematics—GPA 3.72/4.00 | *magna cum laude* — 2015—2019

Experience

Snap Research, *Research Intern* — Virtual/Santa Monica, CA
- Advised by Dr. Francesco Barbieri in the Computational Social Science Team — May 2021—Present
- Contextual impact (time, location, and weather) on expressed sentiment in Snapchat stories

USC Information Sciences Institute (ISI), *Research Assistant* — Marina del Rey, CA
- **DARPA INCAS-UPSCALE** (PI: Dr. Emilio Ferrara) — Aug 2021—Present
  Universal population segmentation and characterization algorithms for online environments
- **DARPA TAILOR-Bespoke** (PI: Dr. Kristina Lerman) — Aug 2019—May 2021
  Learning bespoke interventions for performance optimizations in heterogeneous users

Google, *Software Engineering Intern* — Mountain View, CA
Adwords API Team — Summer 2019

Tufts University, *Research Assistant* — Medford, MA
- Advised by Dr. Li-Ping Liu and Dr. Soha Hassoun — 2018—2019
- Graph embedding models for biochemical molecular reaction prediction

Bose Corporation, *Software Engineering Intern* — Framingham, MA
Consumer electronics advanced development division — Summer 2017

Publications

2021 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.

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.** In the International Conference on the Foundation of Digital Games (FDG '21).

2021 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 the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '21).

2020 Julie Jiang, Kristina Lerman, and Emilio Ferrara. **Individualized Context-Aware Embeddings for Online Games Predictions.** In the IEEE International Conference on Data Mining (ICDM '20), Workshop on High Dimensional Data Mining.

2020 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. (Media coverage: PsyPost.org) [*cited over 50 times]

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.

Papers Under Review ** equal contribution*

2021 Emily Chen*, **Julie Jiang***, Ho-Chun Herbert Chang, Goran Muric, and Emilio Ferrara. COVID-19 **Infodemiology at Planetary Scale: Charting the Information and Misinformation Landscape to Characterize Misinfodemics Spread on Social Media.** Preprint

2021 Alex Bisberg*, **Julie Jiang***, Yilei Zeng, Emily Chen, and Emilio Ferrara. **The Gift That Keeps on Giving: Generosity is Contagious in Multiplayer Online Games.** Under Review.

2021 Julie Jiang, Xiang Ren, and Emilio Ferrara. **Retweet-BERT: Characterizing Echo Chambers by Leveraging Language Features and Information Diffusion in Social Media.** Under Review.

2021 Julie Jiang, Kristina Lerman, and Emilio Ferrara**. Zero-Shot Meta-Learning for Small-Scale Data from Human Subjects.** Under Review.

Presentations ** equal contribution*

2020 Emily Chen*, **Julie Jiang***, Fred Morstatter, Kristina Lerman, and Emilio Ferrara. **Ageism in Traffic Policing.** In IC2S2 '20, Oral presentation. Extended Abstract

2020 Julie Jiang, Li-Ping Liu, and Soha Hassoun. **Enzymatic Link Prediction for Biochemical Route Synthesis.** In MIT AI Powered Drug Discovery and Manufacturing (AIDM '20). Poster

2020 Julie Jiang, Li-Ping Liu, and Soha Hassoun. **Predicting Reactions for Biochemical Networks Using Graph Embeddings.** In Machine Learning in Computational Biology (MLCB '19), co-located with NeurIPS '19. Poster

Teaching

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

Awards

USC ISI Distinguished Graduate Student Research Fellowship	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

Miscellaneous

Reviewer	ICWSM	2022
	TheWebConf, WebSci, TTO (Conf. for Truth and Trust Online)	2021
	TheWebConf, WebSci, CompleNet (Intl. Conf. on Complex Networks)	2020
Skills & Interest	Computational social science, machine learning, deep learning, network analysis, natural language processing, statistical analysis, social media, online games	
Programming	Python, Bash, MATLAB, C/C++, Java, HTML/CSS	
Languages	English and Chinese	