Serina Chang

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EDUCATION	**Stanford University**, Stanford, CA	2019-present
	Ph.D. candidate, Computer Science	
	Advised by Prof. Jure Leskovec and Prof. Johan Ugander	
	Columbia University, New York, NY	2015-2019
	B.A., Computer Science, concentration in Sociology, *magna cum laude*	
	Advised by Prof. Kathleen McKeown	
	GPA: 3.97/4.00, Dean's List (all semesters)	

HONORS	**Outstanding Undergraduate Researcher Award**, Computing Research Association	2019
	Graduate Research Fellowship, National Science Foundation	2019
	The Finch Family Fellowship, Stanford University, School of Engineering	2019
	Phi Beta Kappa, Columbia University	2019
	Theodore R. Bashkow Award, Columbia University, Computer Science	2019
	Academic Excellence Award, Columbia University, Computer Science	2019
	Collegiate Award Finalist, National Center for Women and Information Technology	2018
	King's Crown Leadership Award, Innovation and Enhancement, Columbia University	2018

PUBLICATIONS *indicates co-first authorship.

[1] **Serina Chang***, Emma Pierson*, Pang Wei Koh*, Jaline Gerardin, Beth Redbird, David Grusky, and Jure Leskovec. Mobility network models of COVID-19 explain inequities and inform reopening. *Nature*, 2020; *NeurIPS* ML for Health Workshop, 2020 (extended abstract). Coverage in 300+ news outlets, including The New York Times, The Washington Post, Bloomberg, CNN, Fox Business, Wired, NPR, The Telegraph, MIT Technology Review, and Nature News.

[2] **Serina Chang** and Kathleen McKeown. Automatically inferring gender associations from language. *EMNLP*, 2019. Oral presentation.

[3] **Serina Chang**, Ruiqi Zhong, Ethan Adams, Fei-Tzin Lee, Siddharth Varia, Desmond Patton, William Frey, Chris Kedzie, and Kathleen McKeown. Detecting gang-involved escalation on social media using context. *EMNLP*, 2018. Oral presentation.

[4] Jessica Ouyang, **Serina Chang**, and Kathleen McKeown. Crowd-sourced iterative annotation for narrative summarization corpora. *EACL*, 2017. Oral presentation.

WORKING PAPERS

[1] **Serina Chang** and Johan Ugander. To recommend or not? A model-based comparison of item-matching processes. 2021.

[2] **Serina Chang**, Mandy L. Wilson, Bryan Lewis, Zakaria Mehrab, Komal K. Dudakiya, Emma Pierson, Pang Wei Koh, Jaline Gerardin, Beth Redbird, David Grusky, Madhav Marathe, and Jure Leskovec. Supporting COVID-19 policy response with large-scale mobility-based modeling. 2021.

[3] Kyle Kawagoe*, Mark Rychnovsky*, **Serina Chang**, Greg Huber, Lucy M. Li, Jonathan Miller, Reuven Pnini, Boris Veytsman, and David Yllanes. How much do superspreaders matter? Epidemic dynamics in inhomogeneous populations. 2021.

[4] **Serina Chang**. Disentangling word association in distributional semantics with WordNet. 2019.

TEACHING &	**Research mentor**, Stanford University	2020-present
MENTORSHIP	■ Mentoring 2 students in Prof. Leskovec's lab on research projects related to COVID-19 and mobility	
	Mentor, Stanford Computer Science, Undergraduate Mentoring Program	2020-present
	■ Mentoring an undergraduate student in Computer Science on research, classes, and career paths	
	Instructor, Girls Who Code, Summer Immersion Program	2019
	■ Served as the primary teacher for a classroom of 20 high school girls	
	■ Taught a 7-week curriculum including Python, HTML, CSS, JavaScript, and Arduino	
	Workshop organizer, NYC Digital Humanities Week	2019

- ■ "Beyond Bechdel: Using Computation to Analyze Gender in Film," co-organized and co-taught with Kara Schechtman
- ■ Introduced techniques in natural language processing and data science to analyze movies; provided sample code and data

Instructional assistant, Columbia University, Data Structures in Java (COMS 3134) 2017
- ■ Led discussion sections, held weekly office hours, and graded assignments and exams

Peer tutor, Columbia University, Computer Science Theory (COMS 3261) 2017

INVITED TALKS	OECD-ODISSEI Webinar on Open Data Infrastructure	2021
	Harvard-BCH Machine Learning Club	2021
	Stanford University, Networks (MS&E 135)	2021
	NeurIPS, COVID-19 Symposium	2020
	AI Science Spotlight Series	2020
	Placekey Community Seminar	2020
	Stanford University, Stats ML Retreat	2020
	Columbia University, NLP Seminar	2019
	Columbia University, Emerging Scholars Program (COMS 1404)	2018

WORK EXPERIENCE

Software Engineering Intern, Google, Geo Assistant 2018
- ■ Built a new, user-facing feature for Google Search and Assistant
- ■ Implemented backend to parse queries in Search and optimize accuracy in the feature's triggering patterns
- ■ Worked with UX designer and PM to create frontend for the feature

Engineering Practicum Intern, Google, Search Site Reliability Engineering (SRE) 2017
- ■ Improved internal tools for monitoring and tracking requests to Google Now

LEADERSHIP

Lean In at Columbia, Columbia University 2016-2019
- ■ Co-President (2017-2018); Senior Advisor (2018-2019)
- ■ Grew active membership by 5x to reach over 100 committed members attending weekly meetings
- ■ Founded a mentorship program that connected over 70 students to young professionals in the city
- ■ Organized the first Lean In at CU conference, sponsored by Microsoft, Facebook, IBM, and others

Womxn in CS (WiCS), Columbia University 2016-2019
- ■ Academic Chair (2016-2019)
- ■ Founded WiCS Lightning Talks, a series for student researchers to share their research with student audiences
- ■ Organized panels with faculty and mentorship events with upperclassmen to help students navigate academics in CS

Intercollegiate Chamber Music Festival (ICMF), NYC 2017-2019
- ■ Co-founded and co-produced with Cindy Liu and Dean Deng, in collaboration with the Chamber Music Society of Lincoln Center; the festival has just finished its fourth successful year
- ■ ICMF is an annual, weekend-long music festival that celebrates the talent and passion of collegiate chamber musicians
- ■ Events include a performers' showcase at Lincoln Center, masterclasses with world-renowned artists, and visionary talks with industry leaders

ACTIVITIES

Music Performance Program (MPP), Columbia University 2015-2019
- ■ Took lessons in chamber music and piano
- ■ Selected 3 times to perform in MPP's end-of-year concert at Carnegie Weill Hall

Precollege Program, Manhattan School of Music (MSM) 2003-2015
- ■ Took lessons in piano, violin, chamber music, orchestra, music theory, and ear training
- ■ Recipient of the Rosetta Goodkind Scholarship and the Ralph Zola Scholarship
- ■ Multi-time winner of MSM's concerto and chamber music competitions
- ■ Featured on NPR's *From The Top* (2012); recipient of the National Young Arts Foundation Merit Award (2013); winner of international piano competitions including American Protege, American Fine Arts Festival, and New York International Artists Association