

# Serina Chang

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EDUCATION	<b>Stanford University</b> , Stanford, CA Ph.D. candidate, Computer Science Advised by Prof. Jure Leskovec and Prof. Johan Ugander 2019-present	
	<b>Columbia University</b> , New York, NY B.A., Computer Science, concentration in Sociology, <i>magna cum laude</i> Advised by Prof. Kathleen McKeown GPA: 3.97/4.00, Dean's List (all semesters) 2015-2019	
HONORS	<b>Best Paper Award</b> , KDD 2021 (Applied Data Science Track)	2021
	<b>Outstanding Undergraduate Researcher Award</b> , Computing Research Association	2019
	<b>Graduate Research Fellowship</b> , National Science Foundation	2019
	<b>The Finch Family Fellowship</b> , Stanford University, School of Engineering	2019
	<b>Phi Beta Kappa</b> , Columbia University	2019
	<b>Theodore R. Bashkow Award</b> , Columbia University, Computer Science	2019
	<b>Academic Excellence Award</b> , Columbia University, Computer Science	2019
	<b>Collegiate Award Finalist</b> , National Center for Women and Information Technology	2018
PUBLICATIONS	<b>King's Crown Leadership Award, Innovation and Enhancement</b> , Columbia University	2018
	*indicates co-first authorship.	
	[1] <b>Serina Chang</b> , 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. <a href="#">Supporting COVID-19 policy response with large-scale mobility-based modeling</a> . KDD 2021 (Applied Data Science Track, <b>Best Paper Award</b> ). Oral presentation.	
	[2] Kyle Kawagoe*, Mark Rychnovsky*, <b>Serina Chang</b> , Greg Huber, Lucy M. Li, Jonathan Miller, Reuven Pnini, Boris Veytsman, and David Yllanes. <a href="#">How much do superspreaders matter? Epidemic dynamics in inhomogeneous populations</a> . To appear in <i>Physical Review Research</i> , 2021.	
	[3] <b>Serina Chang</b> *, Emma Pierson*, Pang Wei Koh*, Jaline Gerardin, Beth Redbird, David Grusky, and Jure Leskovec. <a href="#">Mobility network models of COVID-19 explain inequities and inform reopening</a> . <i>Nature</i> , 2020. Also presented at Networks 2021 (oral) and NeurIPS 2020 ML for Health Workshop. Coverage in 380+ news outlets, including The New York Times, The Washington Post, Bloomberg, CNN, Fox Business, Wired, NPR, The Telegraph, MIT Technology Review, and Nature News.	
	[4] <b>Serina Chang</b> and Kathleen McKeown. <a href="#">Automatically inferring gender associations from language</a> . EMNLP 2019 (short paper). Oral presentation.	
	[5] <b>Serina Chang</b> , Ruiqi Zhong, Ethan Adams, Fei-Tzin Lee, Siddharth Varia, Desmond Patton, William Frey, Chris Kedzie, and Kathleen McKeown. <a href="#">Detecting gang-involved escalation on social media using context</a> . EMNLP 2018 (long paper). Oral presentation.	
	[6] Jessica Ouyang, <b>Serina Chang</b> , and Kathleen McKeown. <a href="#">Crowd-sourced iterative annotation for narrative summarization corpora</a> . EACL 2017 (short paper). Oral presentation.	
WORKING PAPERS	[1] <b>Serina Chang</b> and Johan Ugander. To recommend or not? A model-based comparison of item-matching processes. Under review, 2021. Also presented at IC2S2 2021 (oral).	
	[2] Zakaria Mehrab, Mandy L. Wilson, <b>Serina Chang</b> , Galen Harrison, Bryan L. Lewis, Alex Tellionis, Justin Crowe, Dennis Kim, Scott Spillman, Kate Peters, Jure Leskovec, and Madhav Marathe. Data-driven real-time strategic placement of mobile vaccine distribution sites. Under review, 2021.	
TEACHING & MENTORSHIP	<b>Head course assistant</b> , Stanford University, Machine Learning with Graphs (CS 224W)	2021
	<b>Research mentor</b> , Stanford University ▪ Mentoring 3 students in Prof. Leskovec's lab on research projects related to COVID-19 modeling and mobility	2020-present
	<b>Mentor</b> , Stanford Engineering, Summer Undergraduate Research Fellowship	2021

	<b>Mentor</b> , Stanford Computer Science, Undergraduate Mentoring Program	2020
	<b>Instructor</b> , Girls Who Code, Summer Immersion Program	2019
	<ul style="list-style-type: none"> <li>▪ Served as the primary teacher for a classroom of 20 high school girls</li> <li>▪ Taught a 7-week curriculum including Python, HTML, CSS, JavaScript, and Arduino</li> </ul>	
	<b>Workshop organizer</b> , NYC Digital Humanities Week	2019
	<ul style="list-style-type: none"> <li>▪ “Beyond Bechdel: Using Computation to Analyze Gender in Film,” co-organized and co-taught with Kara Schechtman</li> <li>▪ Introduced techniques in natural language processing and data science to analyze movies; provided sample code and data</li> </ul>	
	<b>Instructional assistant</b> , Columbia University, Data Structures in Java (COMS 3134)	2017
	<b>Peer tutor</b> , Columbia University, Computer Science Theory (COMS 3261)	2017
<b>WORK EXPERIENCE</b>	<b>Software Engineering Intern</b> , Google, Geo Assistant	2018
	<ul style="list-style-type: none"> <li>▪ Built a new, user-facing feature for Google Search and Assistant</li> <li>▪ Implemented backend to parse queries in Search and optimize accuracy in the feature’s triggering patterns</li> <li>▪ Worked with UX designer and PM to create frontend for the feature</li> </ul>	
	<b>Engineering Practicum Intern</b> , Google, Search Site Reliability Engineering (SRE)	2017
	<ul style="list-style-type: none"> <li>▪ Improved internal tools for monitoring and tracking requests to Google Now</li> </ul>	
<b>INVITED TALKS</b>	Harvard-BCH Machine Learning Club	2021 (scheduled)
	Cornell Tech, Guest Lecture for Urban Data (INFO 5430)	2021
	OECD-ODISSEI Webinar on Open Data Infrastructure	2021
	March for Science podcast	2021
	PathCheck Global Health Innovators Seminar	2021
	Stanford, Guest Lecture for Networks (MS&E 135)	2021
	Diaries of Social Data Research podcast	2021
	Stanford, Guest Lecture for Big Data Methods for Behavioral, Social, and Population Health Research (EPI 270)	2021
	Stanford San Diego Alumni Club, Speaker Event	2021
	NeurIPS, COVID-19 Symposium	2020
	AI Science Spotlight Series	2020
	The Octavian Report podcast	2020
	Placekey Community Seminar	2020
	Stanford, Stats ML Retreat	2020
	Columbia, NLP Seminar	2019
	Columbia, Guest Lecture for Emerging Scholars Program (COMS 1404)	2018
<b>SERVICE</b>	<b>Journal reviewer</b> for:	
	<ul style="list-style-type: none"> <li>▪ American Journal of Sociology</li> <li>▪ ACM Transactions on Spatial Algorithms and Systems</li> </ul>	
	<b>Conference reviewer</b> for:	
	<ul style="list-style-type: none"> <li>▪ Machine Learning for Health (ML4H) Symposium 2021</li> <li>▪ ACL 2021, NLP for Social Good Theme</li> <li>▪ ACL 2021, NLP for Positive Impact Workshop</li> <li>▪ ICLR 2021, AI for Public Health Workshop</li> </ul>	
<b>LEADERSHIP</b>	<b>Lean In at Columbia</b> , Columbia University	2016-2019
	<ul style="list-style-type: none"> <li>▪ Co-President (2017-2018); Senior Advisor (2018-2019)</li> <li>▪ Grew active membership by 5x to reach over 100 committed members attending weekly meetings</li> <li>▪ Founded a mentorship program that connected over 70 student-mentor pairs</li> <li>▪ Organized the first Lean In at CU conference, sponsored by Microsoft, Facebook, IBM, and others</li> </ul>	
	<b>Womxn in CS (WiCS)</b> , Columbia University	2016-2019
	<ul style="list-style-type: none"> <li>▪ Academic Chair (2016-2019)</li> <li>▪ Founded WiCS Lightning Talks, a series for student researchers to share their research with student audiences</li> <li>▪ Organized panels with faculty and mentorship events with upperclassmen to help students navigate academics in CS</li> </ul>	
	<b>Intercollegiate Chamber Music Festival (ICMF)</b> , NYC	2017-2019
	<ul style="list-style-type: none"> <li>▪ 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</li> </ul>	

- ICMF is an annual, weekend-long music festival for collegiate chamber musicians; events include a performers' showcase at Lincoln Center, masterclasses with world-renowned artists, and 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*; recipient of the National YoungArts Merit Award; winner of international piano competitions including American Protégé, American Fine Arts Festival, and New York International Artists Association