Anilesh Kollagunta Krishnaswamy

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Interests   Algorithms and Game Theory: Social Choice, Platforms and Markets.

Education
- *Ph.D.*, Electrical Engineering, Stanford University.   (expected) May 2019
- *Master of Science*, Electrical Engineering, Stanford University.   May 2014
- *Bachelor of Technology*, Electrical Engineering,   May 2012
Indian Institute of Technology Madras.

Thesis Work   *Title:* Democratic Platforms – large-scale decision making and collaboration.
Advisor: Prof. Ashish Goel.
Lab: Society and Algorithms Lab, Management Science and Engineering.
Designed algorithms and mechanisms for platforms that enable large-scale decision making and collaborative work, with an emphasis on the efficiency and fairness properties of such mechanisms.

Other relevant work
- *Visiting Student Researcher* – Tel Aviv University   May-June 2018
Mentor: Prof. Michal Feldman
Ongoing work on algorithms for envy-free cake-cutting with continuous pieces.

- *Stanford Crowdsourced Democracy Team*   2014-ongoing
Online and on-ground implementation of participatory budgeting elections in many cities/wards across the nation using our digital voting platform (`https://pbstanford.org/`).
Awarded a Certificate of Appreciation by the City of Vallejo, CA.

Publications

(alphabetical author order)

- "Relating Metric Distortion and Fairness of Social Choice Rules," *Ashish Goel, Anilesh K. Krishnaswamy, Reyna Hulett*, 13th Workshop on the Economics of Networks, Systems and Computation (NetEcon), 2018.
- "Metric Distortion of Social Choice Rules: Lower Bounds and Fairness Properties," *Ashish Goel, Anilesh K. Krishnaswamy, Kamesh Munagala*, 18th ACM Conference on Economics and Computation (EC), 2017.
- "Budget aggregation via Knapsack Voting: welfare-maximization and strategy-proofness," *Ashish Goel, Sukolsak Sakshuwong, Anilesh K. Krishnaswamy and Tanja Aitamurto*, Collective Intelligence 2016.
- "Knapsack Voting," *Ashish Goel, Sukolsak Sakshuwong, Anilesh K. Krishnaswamy and Tanja Aitamurto*, Collective Intelligence 2015.
- "Re-incentivizing discovery: Mechanisms for partial-progress sharing in research," *Siddhartha Banerjee, Ashish Goel, Anilesh K. Krishnaswamy*, 15th ACM conference on Economics and Computation (EC), 2014.

Preprints	• "Implementing the Lexicographical Maximin Bargaining Solution," *Ashish Goel, Anilesh K. Krishnaswamy*, under submission. **Shortlisted for the finals of the Nicholson Student Paper Competition to be held at INFORMS 2018.** • "Exploration vs. Exploitation in Team Formation for Collaborative Work," *Ramesh Johari, Vijay Kamble, Anilesh K. Krishnaswamy, Hannah Li*, under submission. • "Knapsack Voting for Participatory Budgeting," *Ashish Goel, Anilesh K. Krishnaswamy, Sukolsak Sakshuwong*, under submission. • "Engineering the Information Commons: Incentives for sharing partial progress," *Siddhartha Banerjee, Ashish Goel, Remco Heesen, Anilesh K. Krishnaswamy*, under preparation.
Teaching	• Head Teaching Assistant, MS&E 211X Optimization (Accelerated). Instructor: Prof. Amin Saberi. Winter 2017-18 • Teaching Assistant, MS&E 135 Networks. Instructor: Prof. Johan Ugander. Winter 2016-17 • Head Teaching Assistant for MS&E 111 Linear Optimization. Instructor: Prof. Ashish Goel Spring 2015-16
Talks	• Maxmin Fairness in Bargaining, May 2018 *Algorithms Seminar, Tel-Aviv University.* • Maxmin Fairness in Bargaining, March 2018 *Google Algorithms TechTalk* (`https://youtu.be/voB1vrXb_Qo`). • Metric Distortion and Fairness of Social Choice Rules, June 2017 *EC 17* (`https://youtu.be/3JvJNo3CGpg`). • Metric Distortion and Fairness of Social Choice Rules, May 2017 *Theory of Computing Associated-SV, Google.* • Budget aggregation via Knapsack Voting, June 2016 *Collective Intelligence 2016.* • Knapsack Voting, June 2015 *Collective Intelligence 2015.*
Service	• Student Organizer, 2017-18 the RAIN (Research on Algorithms and Incentives in Networks) seminar. • Reviewer, 2017-onwards Journals: TEAC ; Conferences: EC, WINE, STOC.
Graduate Coursework	• CS 261 Optimization and Algorithmic Paradigms, CS 265 Randomized Algorithms and Probabilistic Analysis, CS 263 Algorithms for Modern Data Models, MS&E 332 Topics in Social Algorithms. • CS364A Algorithmic Game Theory, CS364B Frontiers in Mechanism Design, CS 269I Incentives in CS, MS&E 338 Platform and Marketplace Design. • STATS 310A Probability Theory, MS&E 312 Stochastic Systems.

Undergraduate research	• *Summer Undergraduate Research Fellowship*, Caltech.　　May-July 2011 Mentor: Prof. Babak Hassibi. "A Simpler Approach to Weighted ℓ_1-minimization," *Anilesh K. Krishnaswamy, Samet Oymak and Babak Hassibi,* IEEE ICASSP 2012. • *Undegraduate Thesis*, IIT Madras.　　2011-12 Mentor: Prof. Radha Krishna Ganti "Coverage and Rate in Cellular Networks with Multi-User Spatial Multiplexing," *Sreejith T. Veetil, Kiran Kuchi, Anilesh K. Krishnaswamy, Radha Krishna Ganti,* IEEE ICC 2013.
Undergraduate Scholarships	• University of Tokyo IIT Undergraduate Students Scholarship, 2011 (awarded to 3 students per year at IIT-Madras). • National Merit Scholarships for securing rank 12 in the IIT-Joint Entrance Examination (IIT-JEE) 2008 (among over 400,000 students), and rank 1 in the All India Engineering Entrance Examination (AIEEE) 2008 (among over 800,000 students).