ANSON KAHNG

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RESEARCH INTERESTS

Computational Social Choice, Theoretical Computer Science, Artificial Intelligence, Economics.

ACADEMIC POSITIONS

University of Rochester, Rochester, NY _July 2022 - Present_
Assistant Professor in Computer Science (CS) and Data Science (GIDS)

University of Toronto, Toronto, ON _August 2021 - August 2022_
Postdoctoral Fellow in Computer Science
Advisor: Nisarg Shah

EDUCATION

Carnegie Mellon University, Pittsburgh, PA _August 2016 - August 2021_
Ph.D. in Computer Science
Advisor: Ariel Procaccia

Harvard University, Cambridge, MA _August 2012 - May 2016_
Bachelor of Arts in Computer Science, _cum laude_
Advisor: David Parkes

INDUSTRY EXPERIENCE

Microsoft Research, New York, NY _May 2019 - August 2019_
Graduate Research Intern
Supervised by David Pennock and Rupert Freeman. Worked on multi-winner elections and pari-mutuel wagering mechanisms.

Google, Mountain View, CA _June 2014 - August 2014_
Software Engineering Intern
Worked on datacenter software and repairs accuracy. Ran large-scale data mining and developed machine learning algorithms on fleet-wide datacenter statistics.

PUBLICATIONS

Optimized Distortion and Proportional Fairness in Voting _EC 2022_
(α) Soroush Ebadian, Anson Kahng, Dominik Peters, and Nisarg Shah

Worst-Case Voting When the Stakes Are High _AAAI 2022_
(α) Anson Kahng and Gregory Kehne

Liquid Democracy: An Algorithmic Perspective _JAIR 2021_
(α) Anson Kahng, Simon Mackenzie, and Ariel D. Procaccia
Supersedes AAAI 2018.

District-Fair Participatory Budgeting _AAAI 2021_
(α) D Ellis Hershkowitz, Anson Kahng, Dominik Peters, and Ariel D. Procaccia

The Fluid Dynamics of Liquid Democracy _TEAC 2021_
(α) Paul Gölz, Anson Kahng, Simon Mackenzie, and Ariel D. Procaccia
Forthcoming. Supersedes WINE 2018.

Mean Estimation from Multiple-Choice Questions _ICML 2020_
(α) Anson Kahng, Gregory Kehne, and Ariel D. Procaccia

Proportionality in Approval-Based Elections With a Variable Number   *IJCAI 2020*
of Winners
(α) Rupert Freeman, Anson Kahng, and David M. Pennock

HirePeer: *AAAI 2020*
Impartial Peer-Assessed Hiring at Scale in Expert Crowdsourcing Markets
Yasmine Kotturi, Anson Kahng, Ariel D. Procaccia, and Chinmay Kulkarni

Computationally-Aware Data Aggregation   *ITCS 2020*
(α) Bernhard Haeupler, D Ellis Hershkowitz, Anson Kahng, and Ariel D. Procaccia

Paradoxes in Fair Machine Learning   *NeurIPS 2019*
(α) Paul Gölz, Anson Kahng, and Ariel D. Procaccia
NeurIPS Spotlight Presentation (2.5% of submissions)

WeBuildAI: *CSCW 2019*
Participatory Framework for Fair and Efficient Algorithmic Governance
Min Kyung Lee, Daniel Kusbit, Anson Kahng, Ji Tae Kim, Xinran Yuan, Allissa Chan, Ritesh Noothigattu,
Daniel See, Siheon Lee, Alex Psomas, and Ariel D. Procaccia

Statistical Foundations of Virtual Democracy   *ICML 2019*
(α) Anson Kahng, Min Kyung Lee, Ritesh Noothigattu, Ariel D. Procaccia, and Alex Psomas

The Fluid Dynamics of Liquid Democracy   *WINE 2018*
(α) Paul Gölz, Anson Kahng, Simon Mackenzie, and Ariel D. Procaccia

Liquid Democracy: An Algorithmic Perspective   *AAAI 2018*
(α) Anson Kahng, Simon Mackenzie, and Ariel D. Procaccia

Ranking Wily People Who Rank Each Other   *AAAI 2018*
(α) Anson Kahng, Yasmine Kotturi, Chinmay Kulkarni, David Kurokawa, and Ariel D. Procaccia

Making Right Decisions Based on Wrong Opinions   *EC 2017*
(α) Gerdus Benadè, Anson Kahng, and Ariel D. Procaccia

Timing Objectives in Dynamic Kidney Exchange   *Undergraduate Honors Thesis*
Advised by David Parkes

(α): alphabetical author ordering

TEACHING

Diversity, Equity, and Inclusion in Computer Science and Society (15-996B)   *February 2021*
Carnegie Mellon, Pilot Course
Discussion Moderator and Graduate Teaching Assistant

Truth, Justice, and Algorithms (15-896), Carnegie Mellon   *September 2018 - December 2018*
Graduate Teaching Assistant

Graduate Artificial Intelligence (15-780), Carnegie Mellon   *January 2017 - May 2017*
Graduate Teaching Assistant

Networks (CS 134), Harvard University   *August 2015 - December 2015*
Undergraduate Teaching Fellow

SERVICE

PC Member / Reviewer
*Artificial Intelligence, Social Choice and Welfare, EAAMO-22, EC-22, IJCAI-22, NeurIPS-22, AAAI-22, EAAMO-
21, EC-21, ICML-21, IJCAI-21 (SPC), AAAI-21, NeurIPS-20, ICML-20, AAAI-20, SAGT-19*

CMU CSD DEI Working Group   *September 2020 - August 2021*
Member of working group designing a mandatory course on DEI for all CSD PhD students.
Received the CMU SCS Graduate Student Service Award in 2022.

Mechanism Design for Social Good (MD4SG)   *June 2018 - Present*
Civic Participation working group leader (with Paul Gölz)   *September 2020 - May 2022*
Member of the Online Labor Markets and Bias working groups   *June 2018 - September 2020*

Harvard EconCS Seminar Organizer   *September 2020 - June 2021*
Joint with Mark York

Data Analysis Chair   *February 2020 - June 2020*
EC-20

Speakers Club, Carnegie Mellon University   *March 2019 - August 2021*
Graduate Student Member
Evaluate PhD students' speaking skills requirements.

CSD Doctoral Review Committee, Carnegie Mellon University   *November 2017 - August 2021*
Graduate Student Member
Selected as a member of the Computer Science Department's doctoral program advisory committee.

CSD Ph.D. Mentor, Carnegie Mellon University   *September 2017 - August 2021*
Graduate Student Mentor
Mentor junior Ph.D. students in the Computer Science Department.

Random Distance Run Organizer   *April 2017 - April 2021*
Organize an annual ∼50-person track race for the school of computer science.

Hack Harvard Organizer   *January 2015- November 2015*
Organized the first annual Hack Harvard, with 500+ participants, $25,000+ in sponsorship, and over 2,000 pounds
of sponsored merchandise.

TALKS

District-Fair Participatory Budgeting
AAAI '21 Presentation   *February 2021*
Harvard EconCS Seminar   *September 2020*

Proportionality in Approval-Based Elections With a Variable Number of Winners
IJCAI '20 Presentation   *January 2021*
GAIW workshop at AAMAS '20   *May 2020*

Statistical Foundations of Virtual Democracy
University of Toronto, Theory Lunch   *April 2022*
CU Boulder, Guest lecture in CSCI 7000: Topics in Algorithmic Game Theory   *February 2020*
ICML '19 Presentation   *June 2019*
Computational Sustainability Open Graduate Seminar   *April 2019*
Carnegie Mellon University, AI Seminar   *March 2019*

Paradoxes in Fair Machine Learning
MD4SG Bias Working Group   *January 2020*
NeurIPS '19 Spotlight Presentation (2.5% of submissions)   *December 2019*

Incentivizing Effort in Impartial Ranking
MD4SG Online Labor Markets Working Group   *November 2018*

Liquid Democracy: An Algorithmic Perspective
AAAI '18 Presentation   *January 2018*

Impartial Rank Aggregation
AAAI '18 Presentation   *January 2018*
Carnegie Mellon University, AI Seminar   *December 2017*

Making Right Decisions Based on Wrong Opinions
EC '17 Presentation   *June 2017*