Curriculum Vitae – P. M. Krafft

30/07/2020

EDUCATION

PhD, Computer Science, Massachusetts Institute of Technology, August 2017

MSc, Computer Science, University of Massachusetts Amherst, June 2012

BS, Mathematics and Statistics, University of Massachusetts Amherst, September 2010

AA, Massasoit Community College, June 2007

DOCTORAL DISSERTATION TITLE

"A Rational Choice Framework for Collective Behavior"

Subfield: Cognitive Science; General Field: Artificial Intelligence

EMPLOYMENT

Non-Stipendiary Junior Research Fellowship, Somerville College, University of Oxford, October 2019 –

Senior Research Fellow, Oxford Internet Institute, University of Oxford, June 2019 –

PUBLICATIONS

Peer Reviewed Journal Articles and Conference Proceedings

- * Abdullah Almaatouq, Alejandro Noriega-Campero, Abdulrahman Alotaibi, <u>P. M. Krafft</u>, Mehdi Moussaïd, Alex Pentland. (2020). <u>Adaptive Social Networks Promote the Wisdom of Crowds</u>. *Proceedings of the National Academy of Sciences of the United States of America (PNAS):* 201917687. [Effort consistent with middle author; journal impact factor: 9.580]
- †,* <u>P. M. Krafft</u>, Joan Donovan. (2020). <u>Disinformation by Design: The Use of Evidence Collages and Platform Filtering in a Media Manipulation Campaign</u>. *Political Communication: 37(2), Beyond Fake News: The Politics of Disinformation, pp. 194-214*. [Effort consistent with first author; journal impact factor: 4.339]
- Emily Porter, <u>P. M. Krafft</u>, Brian Keegan. (2020). <u>Visual Narratives and Collective Memory across Peer-Produced Accounts of Contested Sociopolitical Events</u>. *ACM Transactions on Social Computing: 3(1), Special Issue on Negotiating Truth and Trust in Socio-Technical Systems*. [Effort consistent with middle author; co-authored with graduate students]

- †,* P. M. Krafft, Meg Young, Michael Katell, Karen Huang, Ghislain Bugingo. (2020). <u>Defining AI in Policy versus Practice</u>. *AIES '20: Proceedings of the 2020 AAAI/ACM Conference on AI, Ethics, and Society (ACM AIES), pp. 72-78*. [Effort consistent with first author; co-authored with graduate students; 34% acceptance rate]
- * Michael Katell, Meg Young, Bernease Herman, Dharma Dailey, Vivian Guetler, Aaron Tam, Corinne Bintz, Daniela Raz, P. M. Krafft. (2020). Toward Situated Interventions for Fairness, Accountability, and Transparency: Lessons from the Field. FAT* '20: Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (ACM FAccT*), pp. 45-55. [Effort consistent with final author and research director; co-authored with graduate students; 24% acceptance rate]
- * Meg Young, Michael Katell, <u>P. M. Krafft</u>. (2019). <u>Municipal Surveillance Regulation and Algorithmic Accountability Municipal Surveillance Regulation and Algorithmic Accountability</u>. *Big Data & Society: 6(2), pp. 1-14*. [Effort consistent with final author; coauthored with graduate students; journal impact factor: 4.577]
- Seth Frey, <u>P. M. Krafft</u>, Brian Keegan. (2019). <u>"This Place Does What It Was Built For"</u>: <u>Designing Digital Institutions for Participatory Change</u>. *Proceedings of the ACM on Human-Computer Interaction*: *3(CSCW)*, *pp. 32:1-32:31*. [Author order randomized; effort consistent with first author; 31.1% acceptance rate; best paper honorable mention]
- Abdullah Almaatouq, <u>P. M. Krafft</u>, Yarrow Dunham, David Rand, Alex Pentland. (2019). <u>Turkers of the World Unite: Multilevel In-Group Bias Amongst Crowdworkers on Amazon Mechanical Turk</u>. *Social Psychological and Personality Science: 11(2), pp. 151-159*. [Effort consistent with middle author; co-authored with graduate student; journal impact factor: 3.605]
- † <u>P. M. Krafft</u>, Emma Spiro. (2019). <u>Keeping Rumors in Proportion: Managing Uncertainty in Rumor Systems</u>. *CHI* '19: Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (ACM CHI), pp. 646:1-646:11. [Effort consistent with first author; 23.8% acceptance rate]
- Yea-Seul Kim, Logan Walls, <u>P. M. Krafft</u>, Jessica Hullman. (2019). <u>A Bayesian Cognition Approach to Improve Data Visualization</u>. *CHI '19: Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (ACM CHI)*, pp. 682:1-682:14. [Effort consistent with middle author; co-authored with graduate student; 23.8% acceptance rate]
- Eaman Jahani, P. M. Krafft, Yoshihiko Suhara, Esteban Moro Egido, Sandy Pentland. (2018). ScamCoins, S*** Posters, and the Search for the Next BitcoinTM: Collective Sensemaking in Cryptocurrency Discussions. *Proceedings of the ACM on Human-Computer Interaction:* 2(CSCW), pp. 79:1-79:28. [Effort consistent with middle author; co-authored with graduate student; 25.6% acceptance rate]
- † <u>P. M. Krafft</u>. (2018). A Simple Computational Theory of General Collective Intelligence. *Topics in Cognitive Science (topiCS): 11(2), Special Issue: Computational Approaches to Social Cognition, pp. 374-392.* [Effort consistent with first author; journal impact factor in 2018: 2.050]
- * <u>P. M. Krafft</u>, Nicolás Della Penna, Alex Pentland. (2018). An Experimental Study of Cryptocurrency Market Dynamics. *CHI '18: Proceedings of the 2018 CHI Conference on*

- *Human Factors in Computing Systems (ACM CHI)*, *pp.* 605:1-605:13. [Effort consistent with first author; co-authored with graduate student; 25.7% acceptance rate]
- Dan Fu, Emily Wang, <u>P. M. Krafft</u>, Barbara Grosz. (2018). <u>Influencing Flock Formation in Low-Density Settings</u>. *AAMAS '18: Proceedings of the 17th International Conference on Autonomous Agents and MultiAgent Systems (ACM AAMAS)*, pp. 1613-1621. [Effort consistent with middle author; co-authored with undergraduate students; 25.3% acceptance rate]
- Elisa Celis, <u>P. M. Krafft</u>, Nisheeth Vishnoi. (2017). A <u>Distributed Learning Dynamics in Social Groups</u>. *PODC '17: Proceedings of the ACM Symposium on Principles of Distributed Computing (ACM PODC)*, *pp. 441-450*. [Authors listed alphabetically; effort consistent with middle author; 24.7% acceptance rate]
- † <u>P. M. Krafft</u>, Michael Macy, Alex Pentland. (2017). Bots as Virtual Confederates: Design and Ethics. *CSCW '17: Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (ACM CSCW)*, pp. 183-190. [Effort consistent with first author; 34.5% acceptance rate]
- † <u>P. M. Krafft</u>, Kaitlyn Zhou, Isabelle Edwards, Kate Starbird, Emma Spiro. (2017). Centralized, Parallel, and Distributed Information Processing during Collective Sensemaking. : *CHI '17: Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (ACM CHI)*, pp. 2976-2987. [Effort consistent with first author; co-authored with undergraduate students; 25.0% acceptance rate]
- † <u>P. M. Krafft</u>, Chris Baker, Alex Pentland, and Joshua Tenenbaum. (2016). <u>Modeling Human Ad Hoc Coordination</u>. *AAAI'16: Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence (ACM AAAI)*, pp. 3740-3746. [Effort consistent with first author; 25.7% acceptance rate]
- Elisa Celis, <u>P. M. Krafft</u>, and Nathan Kobe. (2016). Sequential Voting Promotes Collective Discovery in Social Recommendation Systems. *Tenth International AAAI Conference on Web and Social Media (ICWSM)*, pp. 42-51. [Effort consistent with middle author; 17.0% acceptance rate]
- Ali Nahm, Alex Pentland, <u>P. M. Krafft</u>. (2016). <u>Inferring Population Preferences via Mixtures of Spatial Voting Models</u>. *Social Informatics*. *SocInfo 2016*. *Lecture Notes in Computer Science (SocInfo)*, 10046, pp. 290-311. [Effort consistent with final author and research director; co-authored with undergraduate student; 27.5% acceptance rate]
- † <u>P. M. Krafft</u>, Juston Moore, Bruce Desmarais, and Hanna Wallach. (2012). <u>Topic-Partitioned</u> <u>Multinetwork Embeddings</u>. *Advances in Neural Information Processing Systems (NeurIPS)*, 25, pp. 4659:1-4659:9. [Effort consistent with first author; 23.6% acceptance rate]
- Invited Journal Articles, Conference Proceedings and Book Chapters
- Dhaval Adjodah, Dan Calacci, Abhimanyu Dubey, Anirudh Goyal, P. M. Krafft, Esteban Moro, Alex Pentland. (2020). Leveraging Communication Topologies Between Learning Agents in Deep Reinforcement Learning. International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) Extended Abstracts, pp. 1738-1740. [Effort consistent with middle author; co-authored with graduate students]

- † <u>Critical Platform Studies Group</u>, Lilly Irani, Niloufar Salehi, Joyojeet Pal, Andrés Monroy-Hernández, Elizabeth Churchill, Sneha Narayan. (2019). <u>Patron or Poison? Industry Funding</u> of HCI Research. *CSCW '19: Conference Companion Publication of the 2019 on Computer* Supported Cooperative Work and Social Computing [Effort consistent with first author; coauthored with graduate students]
- † <u>P. M. Krafft</u>, Tom Griffiths. (2018). Levels of Analysis in Computational Social Science. *Annual Conference of the Cognitive Science Society (CogSci)*, pp. 1963-1968. [Effort consistent with first author]
- † <u>P. M. Krafft</u>, Robert Hawkins, Alex Pentland, Noah Goodman, and Joshua Tenenbaum. (2015). Emergent Collective Sensing in Human Groups. *Annual Conference of the Cognitive Science Society (CogSci)*, pp. 1201-1206. [Effort consistent with first author; Computational Modeling Prize for Best Paper on Applied Cognition]
- Chang Wang, <u>P. M. Krafft</u>, and Sridhar Mahadevan. (2011). Manifold Alignment. In Y. Ma & Y. Fu (Eds.) <u>Manifold Learning: Theory and Applications</u>. Taylor and Francis CRC Press. [Effort consistent with middle author]

Public Writing

- Sholei Croom, Franziska Putz, <u>P. M. Krafft</u>, Nathalie Fernandez. (2020). <u>Big Tech Won't Save Us:</u>
 <u>The Case for Social Transformation over Coronavirus Surveillance</u>. *Medium*. [Effort consistent with middle author]
- <u>London Tech Workers Coalition</u>. (2020). <u>Tech Workers Unite</u>. [Effort consistent with middle author]
- † <u>P. M. Krafft</u>. (2019). <u>Casualization is an Accountability Problem</u>. *Medium*. [Effort consistent with first author]
- Carl Governale, Jevan Hutson, P. M. Krafft, Zulkayda Mamat. (2019). China's Surveillance State is Made-In-the-USA: US Institutions Must Divest from Facial Recognition Research & Development. Medium. [Authors listed alphabetically; effort consistent with first author; covered in Wired "MIT Cuts Ties With a Chinese AI Firm Amid Human Rights Concerns"]
- † <u>P. M. Krafft</u>. 26 Feb, 2019. Letter in Support of Tech Fairness Bill HB 1655. Delivered to: Members of the Washington State House Appropriations Committee. [Effort consistent with first author]
- † <u>P. M. Krafft</u>, Mike Katell, Meg Young. 26 Feb, 2019. Letter in Support of Face Surveillance Bill HB 1654. Delivered to: Members of the Washington State House Appropriations Committee. [Effort consistent with first author; co-authored with graduate students]

Manuscripts in Development

Robert Hawkins, Andrew Berdahl, Hongbo Fang, Alex Pentland, Noah Goodman, Joshua Tenenbaum, <u>P. M. Krafft</u>. Emergent Collective Sensing in Human Groups. [In preparation]

- Meg Young, Mike Katell, Bernease Herman, Dharma Dailey, Aaron Tam, Vivian Guetler, Corinne Binz, Daniella Raz, <u>P. M. Krafft</u>. An Equity in Automation Toolkit for Community Advocate and Activist Audits. [In preparation]
- † <u>P. M. Krafft</u>, Erez Shmueli, Tom Griffiths, Joshua Tenenbaum, Alex Pentland. Bayesian Collective Learning Emerges from Heuristic Social Learning. [Revise and resubmit]
- † <u>P. M. Krafft</u>, Bill Thompson, Thomas Griffiths. Rational Collective Learning in the Laboratory. [In preparation]
- † P. M. Krafft. Split-Sample Adaptive Data Collection. [In preparation]
- Amin Rahimian, <u>P. M. Krafft</u>, Ali Jadbabaie. Group Decision Making: Theory and Experiments. [In preparation]
- Dhaval Adjodah, Shi Kai Chong, Yan Leng, <u>P. M. Krafft</u>, Alex Pentland. Large-Scale Experiment on the Importance of Social Learning and Unimodality in the Wisdom of the Crowd. [In preparation]
- Dhaval Adjodah, Yan Leng, Shi Kai Chong, <u>P. M. Krafft</u>, Alex Pentland. Social Bayesian Learning in the Wisdom of the Crowd. [In preparation]

RESEARCH GRANTS

External

- "Algorithmic Equity Toolkit Development". American Civil Liberties Union, February May 2020. \$5,425 (£4,194). [Contract to Critical Platform Studies Group 501(3)(c)]
- "Social MIND: Social Machine Intelligence for Novel Discovery". DARPA, September 2017 February 2020. \$1,995,466 (£1,538,287) [Co-PI]

Internal

"Municipal Technology Policy: Algorithms and Accountability in Practice". University of Washington Information School Innovation Funds. \$9,963 (£7,983) [Co-PI]

TEACHING AND SUPERVISING

- Instructor. Introduction to Fairness, Accountability, and Transparency in Machine Learning. Oxford Internet Institute. University of Oxford. Hilary Term 2020.
- Teaching fellow. Multi-Agent Systems: Collaboration, Coordination and Loosely-Coupled Teamwork. School of Engineering and Applied Sciences. Harvard University. Spring 2017. [Received 2017 Harvard Bok Center Certificate of Distinction in Teaching]

Instructor. Social Physics. MIT Media Lab. Massachusetts Institute of Technology. Fall 2016.

UNIVERSITY COMMITTEES AND OTHER DUTIES

Department Committees and Other Duties

OII Assessment Scrutiny Committee

OII Bullying and Harassment Working Group

PROFESSIONAL OFFICES, COMMITTEES, AND AWARDS

Awards

Best Poster, iConference, 2019 (for "Algorithmic Accountability in Surveillance Regulation").

Best Paper Honorable Mention, ACM Conference on Computer-Supported Cooperative Work and Social Computing, 2019 (for "'This Place Does What It Was Built For': Designing Digital Institutions for Participatory Change.").

Moore/Sloan & WRF Innovation in Data Science Postdoctoral Fellowship, University of Washington eScience Institute, 2018.

Harvard Bok Center Certificate of Distinction in Teaching, 2017.

Computational Modeling Prize for Best Paper on Applied Cognition, Annual Conference of the Cognitive Science Society, 2015 (for "Emergent Collective Sensing in Human Groups").

NSF Graduate Research Fellowship, National Science Foundation, 2012–2015.

Workshops, Conferences, Panels, and Trainings Organized

Departmental co-host, Oxford Digital Ethnography Seminar (OxDeg). Michaelmas 2019 –

Faculty advisor, "Developing an Algorithmic Equity Toolkit with Government, Advocates, and Community Partners". Data Science for Social Good Program. eScience Institute, University of Washington. Summer 2019.

Organizer, "Workshop on Social Responsibility at the new MIT College of Computing". Massachusetts Institute of Technology. Cambridge, MA. July 2019.

Organizer, "Connecting the Dots: Racism in Algorithms and Tech" Panel. University of Washington. Seattle, WA. May 2019. [250 attendees, 2000 views online; media coverage: University of Washington Daily, The Spectator]

Reviewing and Program Committee Service

Editorial board, IEEE Journal of Social Computing, 2019 – 2020.

Reviewer, National Science Foundation (NSF) Science, Technology, and Society (STS) Program, 2019.

Reviewer, NeurIPS Joint Workshop on AI for Social Good, 2019.

Reviewer, Neural Information Processing Systems (NeurIPS). 2016 – 2019. [2018: awarded reserved resgistration; 2019: awarded free registration]

Reviewer, ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2019.

Reviewer, International Journal of Human-Computer Interaction (IJHCI). 2019.

Reviewer, International AAAI Conference on Web and Social Media (ICWSM). 2019.

Reviewer, iConference. 2019.

Reviewer, IEEE Transactions on Software Engineering. 2018.

Reviewer, ACM Human Factors in Computing Systems (CHI). 2017, 2019.

Reviewer, International Conference on Artificial Intelligence and Statistics (AISTATS). 2019.

Reviewer, International Conference on Learning Representations (ICLR). 2018, 2019.

Reviewer, International Conference on Machine Learning (ICML). 2018.

Reviewer, PLoS One, 2018.

Reviewer, Annual Conference of the Cognitive Science Society (CogSci). 2017 – 2019.

Reviewer, Swarm Intelligence. 2017.

Reviewer, Big Data. 2017.

Program Committee, International Conference on Computational Social Science (IC2S2). 2017.

Program Committee, Annual Workshop on Crowdsourcing and Online Behavioral Experiments (COBE). 2016.

Program Committee, Collective Intelligence Conference. 2015.

TALKS, PAPERS AND PRESENTATIONS

Invited Talks

"AI, Society, and Social Justice". Oxford Public Philosophy Critical Discussion Group. Oxford, UK. May 2020.

"Introduction to Machine Learning". Oxford Internet Institute Internet Leadership Academy. Oxford, UK. September 2019.

* "Research and Action in Social Computing". International Conference of Social Computing. Beijing, China. August 2019. [Keynote]

- "Artificial Intelligence in Practice and in Policy". Oxford Prospects Program. Oxford, UK. July August 2019.
- "Artificial Intelligence in Practice and in Policy". Imperial College London, UK. August 2019.
- "A Critical Examination of Computational Social Science". London Conference In Critical Thought (London Crit). London, UK. July 2019.
- "Computational Social Science: 10 Years Later". Oxford Internet Institute Summer Doctoral Program. Oxford, UK. July 2019.
- "Policy vs Practice: Conceptions of Artificial Intelligence". Oxford-Man Institute Machine Learning Workshop. Oxford, UK. July 2019.
- * "My Math Path to Social Data Science". British Columbia Undergraduate Mathematics and Statistics Conference (BC UMSC). Vancouver, BC. April 2019. [Keynote]
- "When Can We Say a Rumor Has Grown Out of Proportion? A Computational Approach". University of Washington eScience Community Seminar. Seattle, WA. May 2018.
- "Rumors and Population Representations of Uncertainty". University of Washington DUB Seminar. Seattle, WA. May 2018.
- "Socially Sampled Beliefs: Mechanisms Underlying the Formation of Accurate and Inaccurate Shared Beliefs". Rutgers School of Communication and Information Data Science and Social Systems Talk. New Brunswick, NJ. October 2017.
- "Identifying Structure and Function in Sociotechnical Systems". Allen Turing Institute Fairness, Transparency, and Privacy Meeting. London, UK. July 2017.
- "Identifying Structure and Function in Sociotechnical Systems". Newspeak House AI & Politics Meetup. London, UK. July 2017.
- "A Rational Choice Framework for Collective Behavior". Tel Aviv University Department of Industrial Engineering Seminar Series. Tel Aviv, Israel. July 2017.
- "A Rational Choice Framework for Collective Behavior". Weizmann Institute Faculty of Physics External Speaker Series. Rehovot, Israel. July 2017.
- "Computational Social Theory". EPFL Laboratory for Communications and Applications. Lausanne, Switzerland. May 2016.
- "Rationality and Irrationality in Collective Human Behavior". University of Chicago Computational Social Sciences Workshop. Chicago, IL. May 2016.
- "Homophily in Voter Networks". INFORMS Session on Social Intelligence: Learning, Aggregation and Applications. San Francisco, CA. November 2014.
- "Topic-Specific Communication Patterns in Email Data". New Directions in Analyzing Text as Data. Cambridge, MA. October 2012.

Contributed Talks

- "A Critical Examination of Computational Social Science". Society for Social Studies of Science (4S), 2019.
- "Defining Artificial Intelligence: Regulating a Moving Target". Society for Social Studies of Science (4S), 2019.
- "Corporate Expertise and Civic Good: A Critical Examination of Seattle's Innovation Advisory Council". Society for Social Studies of Science (4S), 2019.
- "Patron or Perish? Interrogating the Role of Industry Funding in Academic Research". Society for Social Studies of Science (4S), 2019.
- "Lawmaker Oversight: Municipal Surveillance Regulation as Algorithmic Accountability in Practice". American Sociological Association (ASA), 2019.
- "Modeling the Interpretation of Visualized Statistics as Bayesian Cognition". EC Workshop on Behavioral Economics and Computation, 2019.
- "Understanding vs. Accounting for Automated Systems: The Case of the Seattle Surveillance Ordinance". TILTing Perspectives, 2019.
- "Collective Information Processing in Human Rumor Spreading Networks". NetSci, 2019.
- "Observing and Overcoming Dunbar Cognitive Limitations in Financial Networks". NetSci, 2019.
- "Flat Earth: An Expedition". All Boats Rise: Amazon Conference on Social Isolation, 2018.
- "Our Research and Our Lives". Moore-Sloan Data Science Environments (MSDSE) Summit, 2018.
- "Media, Power, Social Change: How Swarm Intelligence is Changing Networked Social Movements". American Sociological Association (ASA), 2018.
- "Rational Collective Learning in the Laboratory". Collective Intelligence Conference (CI), 2018.
- "Improving Deep Reinforcement Learning with Collective Intelligence". Collective Intelligence Conference (CI), 2018.
- "Collective Rationality in the Dynamics of Popularity". American Sociological Association Annual Meeting (ASA), 2016.
- "Computational Social Theory". Conference of the International Network of Analytical Sociologists (INAS), 2016.
- "Collective Rationality in the Dynamics of Popularity". Sunbelt Conference of the International Network for Social Network Analysis (Sunbelt), 2016.
- "Bots as Virtual Confederates in Online Field Experiments". AAAI Spring Symposium: Intelligent Systems for Supporting Distributed Human Teamwork, 2016.

- "Measuring the Political Preferences of the U.S. Electorate". International Conference on Computational Social Science (IC2S2), 2015.
- "Bubbles and Network Structure: A Study in Cryptocurrencies". International Conference on Computational Social Science (IC2S2), 2015.
- "Herding in Markets: A Randomized Field Experiment". Second EC Workshop on Crowdsourcing and Behavioral Experiments, 2014.
- "Popularity and Performance: A Large-Scale Study". International Conference on Network Science (NetSci), 2014. [Spotlight talk]
- "Effects of Homophily in Voter Networks". Workshop on Information in Networks (WIN), 2013.
- "Happiness Prediction and Strength of Ties". Science of Success Symposium, 2013.
- "Homophily and Election Outcomes". Links Conference, 2013.
- "Topic-Specific Communication Patterns in Email Data". Interdisciplinary Workshop on Information and Decision in Social Networks (WIDS), 2013.

Contributed Posters

- "Radical Cybernetics: An Alternative Approach to Functionalism". Society for Philosophy and Psychology (SPP), 2019.
- "Digital Institution Design from the Resource Management Perspective". International Communication Association (ICA), 2019.
- "ScamCoins, S*** Posters, and the Search for the Next Bitcoin TM: Collective Sensemaking in Cryptocurrency Discussions". International Conference on Computational Social Science (IC2S2), 2019.
- "Collective Information Processing in Human Rumor-Spreading Networks". International Conference on Computational Social Science (IC2S2), 2019.
- "Algorithmic Accountability in Surveillance Regulation". iConference, 2019. [Best Poster Award]
- "How to Organize Your Deep Reinforcement Learning Agents: The Importance of Communication Topology". Neural Information Processing Systems (NeurIPS) Deep Reinforcement Learning Workshop, 2018.
- "How the Media Talks about Science". Sci Comm Camp, 2018.
- "Platform Filtering: How Rumors Crystallize when Crossing Platform Boundaries". International Conference on Computational Social Science (IC2S2), 2018.
- "Improving Deep Reinforcement Learning with Collective Intelligence". International Conference on Computational Social Science (IC2S2), 2018.

- "Improved Learning in Evolution Strategies via Sparser Inter-Agent Network Topologies". NeurIPS Deep Reinforcement Learning Symposium, 2017.
- "Bots as Virtual Confederates: Design and Ethics". International Conference on Computational Social Science (IC2S2), 2017.
- "Social Influence in Cryptocoin Markets: A Randomized Field Experiment". International Conference on Computational Social Science (IC2S2), 2016.
- "Three Simple Conditions for Collective Rationality". NeurIPS Workshop on Bounded Optimality and Rational Metareasoning, 2015.
- "Measuring Social Biases in Online Spaces". Conference on Digital Experimentation (CODE@MIT), 2015.
- "Popularity and Performance: A Large-Scale Study". Collective Intelligence Conference (CI), 2014.
- "Multiparty Election Dynamics in Social Networks". New England Machine Learning Day (NEML), 2013.
- "Beliefs and Preferences in Voter Networks". International Conference on Network Science (NetSci), 2013.
- "Modeling Government Email Networks". Political Networks Conference (PolNet), 2012.
- "Feature-Preserving Embeddings for Topic Transfer". NeurIPS Workshop on Transfer Learning via Rich Generative Models, 2010.

OTHER QUALIFCIATIONS AND ACTIVITIES

Roles and Affiliations

Associate Member, Oxford-Man Institute of Quantitative Finance, University of Oxford, July 2019 – August 2019

Co-Director and Secretary, Critical Platform Studies Group, 501(c)(3), November 2019 –

Participation in Fellowship Programs

Fellow. Harvard Berkman-Klein Center & MIT Media Lab Ethics and Governance in Artificial Intelligence Initiative Assembly Program, 2019.

Participation in Trainings

Participant. Data and Software Carpentries Instructor Training, 2019.

Participation in Invited or Competively Selected Workshops

Participant. Santa Fe Institute Complex Systems Summer School, 2018.

Invited participant. The Neukom Institute for Computational Science: The Science of Counter-Earth Workshop, 2017.

Participant. Russell Sage Foundation Summer Institute on Computational Social Science (SICCS), 2017.

Invited participant. BIRS Models and Algorithms for Crowds and Networks Workshop, 2016.

Participant. IJCAI Doctoral Consortium, 2016.

Participant. HCOMP CrowdCamp Hackathon, 2014.

Participant. IPAM Workshop on Mathematics of Social Learning, 2014.

Participant. Machine Learning Summer School, 2013.