David Mingfei Liu

Contact Information

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Education

Northeastern University (2020 - Present)
Ph.D. Candidate, Computer Science
Khoury College of Computer Sciences and Network Science Institute
Advisor: Professor Tina Eliassi-Rad

Princeton University (2018)
B.S.E in Computer Science with Certificate in Statistics and Machine Learning
summa cum laude
Undergraduate Advisor: Professor Matthew J. Salganik

Publications

David Liu and Tina Eliassi-Rad. 2023. Identifying and Mitigating Instability in Embeddings of the Degenerate Core. In *Proceedings of the 2023 SIAM Data Mining Conference (SDM)*. [pdf]

Agapi Rissaki*, Bruno Scarone*, **David Liu**, Aditeya Pandey, Brennan Klein, Tina Eliassi-Rad, and Michelle A. Borkin. 2022. BiaScope: Visual Unfairness Diagnosis for Graph Embeddings. *Symposium on Visualization in Data Science at IEEE VIS (VDS '22)*. [pdf]

David Liu*, Priyanka Nanayakkara*, Sarah Sakha, Grace Abuhamad, Su Lin Blodgett, Nicholas Diakopoulos, Jessica Hullman, and Tina Eliassi-Rad. 2022. Examining Responsibility and Deliberation in AI Impact Statements and Ethics Reviews. In *Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society (AIES '22)*. [pdf]

David Liu, Zohair Shafi, William Fleisher, Tina Eliassi-Rad, and Scott Alfeld. 2021. RAWLSNET: Altering Bayesian Networks to Encode Rawlsian Fair Equality of Opportunity. In *Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society (AIES '21)*. [pdf]

David Liu and Matthew J. Salganik. Successes and struggles with computational reproducibility: Lessons from the fragile families challenge. *Socius*, 5:1–21, 2019. [pdf]

Non-Peer Reviewed Essays

David Liu and Sarah Sakha. Power: The exclusionary costs of large-scale computing. In *A New AI Lexicon* by The AI Now Institute. [link]

Posters	**David Liu** and Tina Eliassi-Rad. Increasing the Stability of Embeddings of the Degenerate Core. *The 2022 International Conference on Network Science* (NetSci), Virtual Conference, July 2022. (oral presentation)
	David Liu. Uncovering the Evolution of Mukbang Videos on Youtube. *The 7th International Conference on Computational Social Science* (IC2S2), Virtual Conference, July 2021.
	David Liu. Uncovering the Evolution of Mukbang Videos on Youtube. *Networks 2021: A Joint Sunbelt and NetSci Conference*, Virtual Conference, July 2021. (poster presentation)

Professional Experience

University of California, Berkeley - *Visiting Graduate Student*   Fall 2022
Simons Institute Program on "Graph Limits and Processes on Networks: From Epidemics to Misinformation"

Meta AI (FAIR) - *AI Research Intern*   May 2022 - Aug 2022
Paper forthcoming on demographic-free group fairness
Supervisor: Maximilian Nickel

Bloomberg LP - *Software Engineer*   Jul 2018 - Sep 2020

The New York Times - *Software Intern*   Jun 2017 - Aug 2017

Awards and Honors

2021	NSF Graduate Research Fellowship (GRFP)
2018	Sigma Xi Nomination

Activities

2021	Subtle CSCW Traits: Tensions around Identity Formation and Online Activism in the Asian Diaspora, workshop participant.
2020	ML Reproducibility Challenge, participant.

Invited Talks

2021	MD4SG Working Group on Discrimination in Algorithmic Decision-making, Invited Speaker. Online.
2019	RabbitMQ Summit, Keynote Speaker. *Growing a farm of rabbits to scale financial applications.* London, UK.
2016	Fragile Families Challenge Scientific Workshop, Invited Speaker. Princeton, NJ.

Academic Service

ICLR '23	Program Committee
AIES '22	Program Committee
AIES '21	Student Volunteer
NeurIPS '21	Student Volunteer