

DBDS Workshop in Biostatistics

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(In Person (**preferred**) & Virtual access Password: 210310)

DATE:	April 28, 2022
TIME:	1:30-2:50pm
TITLE:	Out of Scope, Out of Mind: Expanding Frontiers for Fair ML in Social Decision Making
SPEAKER:	Serena Wang , PhD Student, UC Berkeley

Abstract:

Abstract: Recent literature in fair machine learning (fair ML) has focused on applying notions of fairness within a technical scope involving data, models, and prediction quality across protected groups. This talk will start by presenting two technical solutions within this framework to overcome practical challenges, including (i) enforcing group-based fairness constraints when the data is incomplete or noisy, and (ii) avoiding unfair penalization of other input features. Still, beyond these practical challenges, even the most heavily fairness-constrained ML model might fall short in satisfying societal needs due to choices in problem formulation and downstream interventions. Thus, based on qualitative work in the education domain, we expand the scope of the ML life cycle and suggest opportunities beyond the typical fairness paradigms for technical and interdisciplinary contribution.

Pre-read information:

- Serena Wang*, Wenshuo Guo*, Harikrishna Narasimhan, Andrew Cotter, Maya R. Gupta, Michael I. Jordan. [Robust Optimization for Fairness with Noisy Protected Groups](#). 34th Conference on Neural Information Processing Systems (NeurIPS), 2020.
- Serena Wang, Maya R. Gupta. [Deontological Ethics By Monotonicity Shape Constraints](#). Proceedings of The 23rd International Conference on Artificial Intelligence and Statistics (AISTATS), 2020.