Fairness in Machine Learning for Health

NEURAL INFORMATION PROCESSING SYSTEMS

NeurIPS 2019
Saturday, December 14, 2019

www.fairmlforhealth.com

9:00 - 9:15	**Check-in and Poster setup**
9:15 - 9:30	**Opening Remarks by Irene Chen**
9:30 - 10:00	**Keynote - Milind Tambe** Applying AI in preventative health interventions: algorithms, deployment and fairness
10:00 - 10:30	**Invited Talk - Ziad Obermeyer** Bad Proxies
10:30 - 11:00	**Coffee Break and Poster Session**
11:00 - 11:15	**Organizers' primer on unconference style breakout sessions**
11:15 - 12:30	**Unconference style breakout sessions - 2 rounds**
12:30 - 12:45	**Breakout session leaders discuss the conclusions with all attendees**
12:45 - 14:00	**Lunch Break**
14:00 - 14:30	**Invited Talk - Sharad Goel** The Measure and Mismeasure of Fairness: A Critical Review of Fair Machine Learning
14:30 - 15:00	**Invited Talk - Noa Dagan, Noam Barda** Addressing Fairness in Prediction Models by Improving Subpopulation Calibration
15:00 - 15:30	**Invited Talk - Chelsea Barabas** Beyond Bias: Contextualizing "Ethical AI" Within the History of Race, Exploitation and Innovation in Medical Research
15:30 - 16:00	**Coffee Break and Poster Session**
16:00 - 17:00	**Panel Discussion** Milind Tambe, Ziad Obermeyer, Sharad Goel, Noa Dagan, Noam Barda, Chelsea Barabas
17:00 - 17:30	**Spotlight Presentations** • Estimating Skin Tone and Effects on Classification Performance in Dermatology Datasets • Understanding racial bias in health using the Medical Expenditure Panel Survey Data • Fair Predictors under Distribution Shift
17:30 - 18:00	**Closing Remarks by Shalmali Joshi and Poster Session**

Accepted Papers

- **Fair and Robust Treatment Effect Estimates: Estimation Under Treatment and Outcome Disparity with Deep Neural Models** by (Author list retracted by request)
- Hurtful Words: Quantifying Biases in Clinical Contextual Word Embeddings (Author list retracted by request)
- Are Deep Learning Chest X-ray Classifiers Fair? by Laleh Seyyed-Kalantari (University of Toronto, Vector Institute)*; Guanxiong Liu (University of Toronto); Matthew BA McDermott (MIT); Marzyeh Ghassemi (University of Toronto, Vector Institute)
- Quantification of Bias in Machine Learning for Healthcare: A Case Study of Renal Failure Prediction by Josie V Williams (NYU); Narges Razavian (NYU Langone Medical Center)
- Assessing Algorithmic Fairness with Unobserved Protected Class Using Data Combination by Xiaojie Mao (Cornell University); Angela Zhou (Cornell University); Nathan Kallus (Cornell University)
- Understanding racial bias in health using the Medical Expenditure Panel Survey data by Moninder Singh (IBM Research); KarthikeyanNatesan Ramamurthy (IBM Research)
- Improving Subpopulation Miscalibration in Medical Risk Prediction by Gal O Yona (Weizmann Institute of Science); Noam Barda (Clalit Research); Noa Dagan (Clalit Research)
- Estimating Skin Tone and Effects on Classification Performance in Dermatology Datasets by Newton Kinyanjui (CMU - Africa); Timothy Odonga (CMU - Africa); Celia Cintas (IBM Research); Noel C Codella (IBM Research); Rameswar Panda (IBM Research); Prasanna Sattigeri (IBM Research); Kush R Varshney (IBM Research)
- Fair treatment allocations in social networks by James Atwood (Google Brain); Hansa Srinivasan (Google); Yoni Halpern (Google); D Sculley (Google)
- When your only tool is a hammer: The limits of computational solutions to bias in healthcare ML by (Author list retracted by request)
- Validation of a deep learning mammography model in a population with low screening rates by Kevin Wu (Harvard University); Eric Wu (DeepHealth); Bill Lotter (Harvard University)
- Enhancing Fairness in Kidney Exchange Program by Ranking Solutions by Golnoosh Farnadi (Polytechnique Montreal); Behrouz Babaki (Polytechnique Montreal); Margarida Carvalho (Université de Montréal)
- Quantifying Fairness in a Multi-Group Setting and its Impact in the Clinical Setting by (Author list retracted by request)
- Fair Predictors under Distribution Shift by Harvineet Singh (NYU); Rina Singh (NYU); Vishwali Mhasawade (NYU); Rumi Chunara (NYU)

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