NSF BIOGRAPHICAL SKETCH

NAME: Sun, Yuekai

POSITION TITLE & INSTITUTION: Assistant Professor of Statistics, University of Michigan

(a) PROFESSIONAL PREPARATION -(see PAPPG Chapter II.C.2.f.(a))

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
Rice University	Houston, TX	Computational and Applied Mathematics	BA	2010
Stanford University	Stanford, CA	Computational and Mathematical Engineering	PHD	2015

(b) APPOINTMENTS -(see PAPPG Chapter II.C.2.f.(b))

2016 - present   Assistant Professor of Statistics, University of Michigan

2015 - 2016   Neyman Visiting Assistant Professor, UC Berkeley

(c) PRODUCTS -(see PAPPG Chapter II.C.2.f.(c))

Products Most Closely Related to the Proposed Project

1. Yurochkin M, Sun Y. SenSeI: Sensitive Set Invariance for Enforcing Individual Fairness. ICLR 2021; 2021 May 04.

2. Vargo A, Zhang F, Yurochkin M, Sun Y. Individually fair gradient boosting. ICLR 2021; 2021 May 04.

3. Bower A, Eftekhari H, Yurochkin M, Sun Y. Individually Fair Rankings. ICLR 2021; 2021 May 04.

4. Maity S, Xue S, Yurochkin M, Sun Y. Statistical Inference for Individual Fairness. ICLR 2021; 2021 May 04.

5. Mukherjee D, Yurochkin M, Banerjee M, Sun Y. Two simple ways to learn individual fairness metrics from data. ICML 2020; 2020 July 12.

Other Significant Products, Whether or Not Related to the Proposed Project

1. Xue S, Yurochkin M, Sun Y. Auditing ML Models for Individual Bias and Unfairness. AISTATS 2020; 2020 June 03; Palermo, Italy.

2. Yurochkin M, Bower A, Sun Y. Training individually fair ML models with sensitive subspace robustness. ICLR 2020; 2020 April 30; Addis Ababa, Ethopia.

3. Bower A, Niss L, Sun Y, Vargo A. Debiasing Representations by Removing Unwanted Variation Due to Protected Attributes. FAT/ML 2018; 2018 July 15; Stockholm, Sweden.

4. Ritov Y, Sun Y, Zhao R. On conditional parity as a notion of non-discrimination in machine learning. arXiv preprint; 2017. Other: arXiv:1706.08519

5. Maity S, Banerjee M, Sun Y. Minimax optimal approaches to the label shift problem. arXiv [Preprint]. 2020 March 23 [revised 2020 April 4]. Available from: https://arxiv.org/abs/2003.10443 PMID: 2003.10443

(d) SYNERGISTIC ACTIVITIES -(see PAPPG Chapter II.C.2.f.(d))

1. Organized a session on algorithmic fairness at the ICSA 2020 China Conference

2. Taught unit on mathematical optimization at the Big Data Summer Institute in the summer of 2018.
3. Organized roundtable on algorithmic fairness at JSM 2022
4. Organized a session on algorithmic fairness at CMStatistics 2022
5. Taught a short course on mathematical optimization, large-scale inference, and causality at Fudan School of Management in June 2019