Keyon Vafa

Columbia University

New York, NY

Department of Computer Science

Interests Machine Learning, Deep Generative Models, Computational Social Science, NLP Education **Columbia University** 2017 -Ph.D. Computer Science Advisor: David Blei **Columbia University** 2016 - 2018 M.S. Computer Science **Harvard University** 2012 - 2016 B.A. Computer Science and Statistics, magna cum laude Awards and Columbia University Nominee for Google PhD Fellowship 2019 **Fellowships** National Science Foundation, Graduate Research Fellow (\$34,000/year) 2016 - 2019 Columbia University Dean's Fellow (full graduate funding) 2016 -Elected to Phi Beta Kappa Society 2016 Bok Center Certificate of Distinction in Teaching 2015 John Harvard Scholar (grade point average in top 5% of class) 2013 - 2015 Work Software Engineer Intern, Google Brain 2018 - 2019 Experience Research Intern, Facebook Artificial Intelligence Research 2017 Data Science Intern (Places Team), Facebook 2015 Software Engineer Intern (Data Science Infrastructure), Facebook 2014 Selected K. Vafa, S. Naidu, D. Blei. Text-based ideal points. Proceedings of ACL. 2020 **Papers** 2019 D. Tran, K. Vafa, K. Agrawal, L. Dinh, B. Poole. Discrete flows: Invertible generative models of discrete data. Proceedings of NeurIPS. D. Eckles, A. Peysakhovich, K. Vafa. Deep neural networks for 2017 interpretable instrumental variable-based estimation of heterogeneous causal effects. Conference on Digital Experimentation, MIT. K. Vafa. Training deep Gaussian processes with sampling. Advances in 2016

Approximate Bayesian Inference Workshop at NeurIPS.

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	K. Vafa , C. Haigh, A. Leung, N. Yonack. Price discrimination in the Princeton Review's online SAT tutoring service. <i>Journal of Technology Science</i> .	2015
Selected Talks	Test-Based Ideal Points (invited talk), Milstein Program Summer Speaker Series. Cornell Tech.	2020
	Discrete Flows and Text-Based Ideal Points (guest lecture), <i>Machine Learning with Probabilistic Programming</i> , Columbia University.	2019
	Text-Based Ideal Points, Text as Data Conference, Stanford University.	2019
	Text-Based Ideal Points, <i>Caselaw Access Project Research Summit</i> , Harvard Law School.	2019
Teaching Experience	Department of Computer Science, Columbia University Teaching Assistant, Foundations of Graphical Models (graduate level) Professor: David Blei	2018
	Department of Computer Science, Harvard University Teaching Fellow, CS 281: Advanced Machine Learning (graduate level) Professor: Finale Doshi-Velez	2015
	Teaching Fellow, CS 181: Introduction to Machine Learning Professor: Ryan Adams	2015
Conference Reviewing	International Conference on Machine Learning Neural Information Processing Systems Advances in Approximate Bayesian Inference International Conference on Learning Representations	2017 - 2020 2017 - 2019 2017 - 2019 2017 - 2019
Press	Harvard Law Today blog post: Text-Based Ideal Points ProPublica article: Princeton Review Price Discrimination Today Show segment: Princeton Review Price Discrimination	
Languages and Skills	Python (+ PyTorch and TensorFlow), R (+ Stan), SQL, Java, PHP, Go English (native), French (advanced), Farsi (proficient) Long distance running (ran 2016 Boston Marathon)	