

Chandler Squires

CONTACT INFORMATION	22 Magazine Street Cambridge, MA, 02139	chandlersquires18@gmail.com 1-210-412-2105
EDUCATION	M.Eng., Electrical Engineering and Computer Science Massachusetts Institute of Technology, Cambridge, MA, USA Thesis Advisor: Prof. Caroline Uhler G.P.A.: 5.0/5.0	September 2019
	B.S., Electrical Engineering and Computer Science Massachusetts Institute of Technology, Cambridge, MA, USA G.P.A.: 4.9/5.0	June 2018
EMPLOYMENT	Summer Researcher, IBM, Cambridge, MA, USA Developed theoretical characterization of optimal experimental design strategies for learning causal graphical models.	June 2019–August 2019
	Data Science Intern, Inference, Cambridge, MA, USA Led both frontend and backend development for two new apps aimed at protein annotation and alignment and patient segmentation; analyzed custom statistical models of protein sequences	January 2018–August 2018
	Summer Researcher, NECSI, Cambridge, MA, USA Analyzed 4 years of Twitter data using topic models to compare to simulations from the Axelrod model of cultural evolution, accepted as an extended abstract and oral presentation at the New England Regional Conference on Complex Systems (NERCCS)	June 2017–August 2017
RESEARCH INTERESTS	<i>Causal inference</i> (learning causal DAGs from observational and interventional data, experimental design). <i>Applied statistics/machine learning</i> (healthcare, neuroscience, biology, economics, social systems).	
TEACHING EXPERIENCE	Massachusetts Institute of Technology 6.437 (Inference and Information) Teaching Assistant 6.438 (Algorithms for Inference) Teaching Assistant	Spring 2019 Fall 2018
LEADERSHIP	Code for Good, Co-director Supported 15-person organizing team in efforts such as recruiting 50+ members/year to consulting programs, raising \$2,000+/year to support programs, and contacting local nonprofits	2017–2018
	Code for Good, Consulting program advisor Mentored ~5 student teams of 2-4 students per semester through software development projects, from early-stage ideation and outlining to final implementation	2016–2018

COMPUTER SKILLS **Languages**—Proficient in Python, Javascript (ES6). Experience in C/C++, Java, Bash, Haskell; LaTeX, HTML, CSS.

Operating systems—Mac OS, Linux/*nix.

Software—Most contributions can be found at <https://github.com/csquires>. Lead developer of `causalDag`, a Python package for the creation, manipulation, and learning of causal DAGs.

**REFEREED
PUBLICATIONS**

5. **Squires, C.**, Wang, Y., Uhler, C. (2020). *Permutation-Based Causal Structure Learning with Unknown Intervention Targets.*, UAI 2020 [[arXiv:1910.09007](https://arxiv.org/abs/1910.09007)].
4. Bernstein, D., Saeed, B., **Squires, C.**, Uhler, C. (2020). *Ordering-based causal structure learning in the presence of latent variables.*, *AISTATS 2020* [[arXiv:1910.09014](https://arxiv.org/abs/1910.09014)].
3. Katz, D., Shanmugan, K., **Squires, C.**, Uhler, C. (2019). *Size of Interventional Markov Equivalence Classes in random DAG models*, *AISTATS 2019* [[arXiv:1903.02054](https://arxiv.org/abs/1903.02054)].
2. Agarwal, R., **Squires, C.**, Yang, K., Uhler, C. (2019). *ABCD-Strategy: Budgeted Experimental Design for Targeted Causal Structure Discovery*, *AISTATS 2019* [[arXiv:1910.09007](https://arxiv.org/abs/1910.09007)].
1. Wang, Y., **Squires, C.**, Belyaeva, A., Uhler, C. (2019). *Direct Estimation of Differences in Causal Graphs*, *NeurIPS 2018* [[arXiv:1802.05631](https://arxiv.org/abs/1802.05631)].