# Keegan W. Harris

### Curriculum Vitae – November 2022

Website: keeganharris.github.io

Twitter: @keeganwharris

Link to Google Scholar

Email: keeganh@cs.cmu.edu

**EDUCATION** 

Carnegie Mellon University

Machine Learning Ph.D. Student
Master of Science - Machine Learning
Advisors: Nina Balcan and Steven Wu

Pittsburgh, PA
August 2020 - Present
December 2022 (expected)

The Pennsylvania State University

Bachelor of Science - Computer Science (Mathematics minor)

Bachelor of Science - Physics Graduated summa cum laude State College, PA

May 2019

May 2019

April 2022

May 2019

# **PUBLICATIONS**

- 1. **Keegan Harris**, Valerie Chen, Joon Sik Kim, Ameet Talwalkar, Hoda Heidari, and Zhiwei Steven Wu. *Bayesian Persuasion for Algorithmic Recourse*. Neural Information Processing Systems (NeurIPS), 2022.
- 2. **Keegan Harris**, Daniel Ngo\*, Logan Stapleton\*, Hoda Heidari, and Zhiwei Steven Wu. *Strategic Instrumental Variable Regression: Recovering Causal Relationships From Strategic Responses*. International Conference on Machine Learning (ICML), 2022.
- 3. **Keegan Harris**, Hoda Heidari, and Zhiwei Steven Wu. *Stateful Strategic Regression*. Neural Information Processing Systems (NeurIPS), 2021.

#### Preprints

- 1. Maria-Florina Balcan, **Keegan Harris**, Mikhail Khodak, and Zhiwei Steven Wu. *Meta-Learning Adversarial Bandits*. https://arxiv.org/abs/2205.14128 (Alphabetical order)
- 2. **Keegan Harris**\*, Ioannis Anagnostides\*, Gabriele Farina, Mikhail Khodak, Zhiwei Steven Wu, and Tuomas Sandholm. *Meta-Learning in Games*. https://arxiv.org/abs/2209.14110
- 3. **Keegan Harris**, Anish Agarwal, Chara Podimata, and Zhiwei Steven Wu. Strategyproof Decision-Making in Panel Data Settings. https://arxiv.org/abs/2211.14236

### Workshop Papers

1. **Keegan Harris**, Chara Podimata, and Zhiwei Steven Wu. *Strategy-Aware Contextual Bandits*. NeurIPS 2022 Workshop on Distribution Shifts.

# AWARDS AND HONORS

# NDSEG Fellowship

Graduate fellowship covering 3 years of tuition and stipend

# Evan Pugh Senior Scholar Award

Awarded to senior Penn State students in the top 0.5% of GPA

Phi Beta Kappa April 2018

Penn State chapter, inducted as a junior

## President Walker Award May 2017

Awarded to first-year Penn State students with a perfect GPA

# Talks

1. "Strategyproof Decision-Making in Panel Data Settings" CMU FEAT Reading Group (November 2022)

- "Allocating Opportunities in a Dynamic Model of Intergenerational Mobility"
   IJCAI 2022 Best Papers from Sister Conferences Track (July 2022, talk given on behalf of Hoda Heidari and Jon Kleinberg)
- 3. "Strategic Instrumental Variable Regression: Recovering Causal Relationships From Strategic Responses" ICML 2022 Spotlight (July 2022, Short Talk)
  AAMAS Learning with Strategic Agents Workshop (May 2022, **Oral Presentation**)
  ICML Workshop on Algorithmic Recourse (July 2021, **Spotlight Presentation**)

4. "Bayesian Persuasion for Algorithmic Recourse"

3nd Symposium on the Foundations of Responsible Computing (June 2022)

AAMAS Learning with Strategic Agents Workshop (May 2022, Oral Presentation)

NeurIPS Workshop on Human and Machine Decisions (December 2021, Oral Presentation

- 6% acceptance rate)
- 5. "Decision Making Under Strategic Responses"

CMU FATES Summer Series (August 2021)

6. "Stateful Strategic Regression"

2nd Symposium on the Foundations of Responsible Computing (June 2021)

CMU FEAT Reading Group (March 2021)

# Teaching

- Teaching Assistant: Advanced Topics in Machine Learning Theory (Fall 2022). Instructor: Nina Balcan

# GRADUATE COURSEWORK

- Advanced Introduction to Machine Learning (Fall 2020). Instructor: Nihar Shah
- Advanced Machine Learning: Theory and Methods (Spring 2021). Instructor: Pradeep Ravikumar
- Advanced Statistical Theory I (Spring 2022). Instructor: Sivaraman Balakrishnan
- Advanced Statistical Theory II (Fall 2021). Instructor: Alessandro Rinaldo
- Advanced Topics in Machine Learning and Game Theory (Fall 2020). Instructor: Fei Fang
- Computational Game Solving (Fall 2021). Instructor: Gabriele Farina and Tuomas Sandholm
- Foundations of Causal Inference (Fall 2022). Instructor: Edward Kennedy
- Graduate Algorithms (Spring 2021). Instructor: Anupam Gupta and Rashmi Vinayak
- Information Economics (Spring 2022). Instructor: James Best
- Intermediate Statistics (Fall 2021). Instructor: Sivaraman Balakrishnan
- Machine Learning in Practice (Fall 2022). Instructor: Rayid Ghani
- Modern Causal Inference (Fall 2022). Instructor: Edward Kennedy
- Modern Convex Optimization (Spring 2022). Instructor: Javier Peña

# SERVICE

#### EXTERNAL REVIEWER:

- ACM Conference on Economics & Computation (EC) 2022
- Conference on Neural Information Processing Systems (NeurIPS) 2021
- Innovations in Theoretical Computer Science (ITCS) 2022
- Symposium on Discrete Algorithms (SODA) 2022

### PROGRAM COMMITTEE:

- Conference on Artificial Intelligence and Statistics (AISTATS) 2023
- Conference on Neural Information Processing Systems (NeurIPS) 2022
- International Conference on Machine Learning (ICML) 2022

### SIGECOM:

- SIGecom Seminar Series Co-organizer 2022
- Student Member 2022, 2021

### University Service:

- CMU Machine Learning Ph.D. Admissions Committee 2023, 2022
- CMU SCS Graduate Application Support Program 2022, 2020
- CMU Undergraduate AI Mentoring Program 2022, 2021

# WORKSHOP PC:

- Learning in Presence of Strategic Behavior (NeurIPS) 2021
- Learning and Decision Making with Strategic Feedback (NeurIPS) 2021
- Trustworthy and Socially Responsible Machine Learning (NeurIPS) 2022