# Keegan W. Harris

## Curriculum Vitae – September 2022

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**EDUCATION** 

Carnegie Mellon University

Pittsburgh, PA

Machine Learning Ph.D. Student

August 2020 - Present

Advisors: Hoda Heidari and Steven Wu

Research interests: machine learning, game theory, econometrics

The Pennsylvania State University

State College, PA

Bachelor of Science - Computer Science (Mathematics minor)

May 2019 May 2019

Bachelor of Science - Physics Graduated summa cum laude

## **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. (Contributional order)
- 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. (Contributional order)
- 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*. ICML Workshop on Adaptive Experimental Design and Active Learning in the Real World, 2022.

## AWARDS AND HONORS

NDSEG Fellowship

April 2022

Graduate fellowship covering 3 years of tuition and stipend

Evan Pugh Senior Scholar Award

 $May \ 2019$ 

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
Awarded to all first-year Penn State students with a 4.00 GPA

May 2017

#### TALKS

1. "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)

2. "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)

3. "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)
- 4. "Decision Making Under Strategic Responses"

CMU FATES Summer Series (August 2021)

5. "Stateful Strategic Regression"

 $2\mathrm{nd}$  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: Maria-Florina Balcan

#### 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 Convex Optimization (Spring 2022). Instructor: Javier Peña

## Professional Activities

#### Conference Reviewing:

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

#### OTHER CONFERENCE SERVICE:

- EC Virtual Session Chair 2022
- ICML Backup Session Chair 2022
- NeurIPS Student Volunteer 2021

## SIGECOM:

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

### University Service:

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

#### WORKSHOP REVIEWING:

- Learning in Presence of Strategic Behavior (NeurIPS) 2021
- Learning and Decision Making with Strategic Feedback (NeurIPS) 2021