Keegan W. Harris

Curriculum Vitae – September 2022

Website: keeganharris.github.io

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Link to Google Scholar

Email: keeganh@cs.cmu.edu

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
Bachelor of Science - Computer Science (Mathematics minor)

May 2019

State College, PA

Bachelor of Science - Physics Graduated summa cum laude 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. (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)
- 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

May 2017

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

EMPLOYMENT

Vitable Health Philadelphia, PA

Machine Learning Consultant

January 2022 - June 2022

Responsible for developing end-to-end data analysis and machine learning pipelines.

Talks

"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"

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: 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
- Microeconomic Theory (Fall 2022). Instructor: Stephen Spear
- 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