Keegan W. Harris

Curriculum Vitae – August 2022

Website: keeganharris.github.io
Twitter: @keeganwharris
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 — State College, PA
Bachelor of Science - Computer Science (Mathematics minor) — *May 2019*
Bachelor of Science - Physics — *May 2019*
Graduated *summa cum laude*

Employment

Vitable Health — Philadelphia, PA
Machine Learning Consultant — *January 2022 - June 2022*
Responsible for developing end-to-end data analysis and machine learning pipelines.

Publications

1. **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)

2. **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.

2. **Keegan Harris**, Valerie Chen, Joon Sik Kim, Ameet Talwalkar, Hoda Heidari, and Zhiwei Steven Wu. *Bayesian Persuasion for Algorithmic Recourse.* NeurIPS Workshop on Human and Machine Decisions, 2021. (Contributional order)

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

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*"
   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 Student 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