Benjamin Laufer

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EDUCATION

Cornell Tech

New York, NY

Ph.D. Candidate in Computing and Information Science

2021 - present

o Advisors: Helen Nissenbaum, Jon Kleinberg

Princeton University

Princeton, NJ

B.S. in Engineering, Operations Research and Financial Engineering, Cum Laude

2015 - 2019

o Minors: Urban Studies, Environmental Studies

Grants and Fellowships

- LinkedIn Bowers CIS PhD Fellowship: Full support for 2023-2024 academic year plus discretionary funding.
- Meta PhD Fellowship Finalist: Runner-up for a two-year, fully-funded fellowship in Computational Social Science. Over 3200 applicants internationally. (2023) [link]
- **Digital Life Initiative Doctoral Fellowship**: Yearlong discretionary funding for PhD students interested in ethics, politics, and quality of life in digital societies. (2022)
- Fulbright Fellowship, Laos: 1 year full support (2019; declined)
- Princeton SEAS Research Fund: Funding for senior thesis research (2018-2019)
- Parkhurst Research Fund: Funding for senior thesis research (2018-2019)
- Yale Law School Arthur Liman Fellowship: Award supporting a summer internship in the public interest and colloquium attendance (2018) [link1, link2]
- Princeton SEAS Research Fund: Funding for junior independent research (2018)
- Princeton Environmental Institute Fellowship: Award for environmental research (2017) [link]
- Princeton International Internship Program: Award for international summer research (2016)

Honors

- Lime Hackathon Winner: 1st place prize in Lime's annual company-wide hackathon. Project entitled "Head First: Real-Time Helmet Detector using Computer Vision" (2020)
- Best Senior Thesis in Urban Studies: Princeton Urban Studies department thesis prize (2019)
- Kenneth H. Condit Graduation Prize: Awarded to a graduating senior at Princeton who has exhibited excellence in leadership, academic achievement and community service (2019) [link]
- Departmental Distinction: Princeton ORFE Honors (2019)
- Sigma Xi: Nominated to the Scientific Research Honors Society upon graduating (2019)

Papers

- Benjamin Laufer, Jon Kleinberg, and Hoda Heidari: "Fine-tuning Games: Bargaining and Adaptation for General-Purpose Models," *ArXiv*.
- Benjamin Laufer, Jon Kleinberg, Karen Levy, and Helen Nissenbaum: "Strategic Evaluation," ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO), 2023.
- Benjamin Laufer and Helen Nissenbaum: "When is Algorithmic Amplification Problematic?" Forthcoming, Knight Institute Symposium on Algorithmic Amplification and Society, 2023.
- Benjamin Laufer, Thomas Gilbert, Helen Nissenbaum: "Optimization's Neglected Normative Commitments." ACM Conference on Fairness, Accountability, and Transparency (FAccT), 2023.
- Benjamin Laufer, Emma Pierson, Nikhil Garg: "End-to-end Auditing for Decision Pipelines." ICML Workshop on Responsible Decision Making in Dynamic Environments (RDMDE), 2022.

- Benjamin Laufer*, Niko Grupen*: "Collective Obfuscation and Crowdsourcing." KDD MIS2-TrueFact and ICML DisCoML workshops, 2022.
- Benjamin Laufer, Sameer Jain, A. Feder Cooper, Jon Kleinberg, Hoda Heidari: "Four Years of FAccT: A Reflexive, Mixed-Methods Analysis of Research Contributions, Shortcomings, and Future Prospects." ACM Conference on Fairness, Accountability, and Transparency (FAccT), 2022.
- A. Feder Cooper, Emanuel Moss, Benjamin Laufer, Helen Nissenbaum: "Accountability in an Algorithmic Society." ACM Conference on Fairness, Accountability, and Transparency (FAccT), 2022.
- Benjamin Laufer: "Abandoning Criminal Risk and Recidivism: On Dangerous Goals in ML Scoring-Decision Systems." NeurIPS Resistance AI Workshop, 2020.
- Benjamin Laufer: "Compounding Injustice: History and Prediction in Carceral Decision-Making." Undergraduate Thesis, ArXiv, Princeton Mudd Manuscript Library, April 2019.
- Benjamin Laufer: "Data Analytics and Machine Learning for Environmental Protection: Targeting Air Inspections." Junior Research Paper, *Princeton ORFE*, January 2018.

Talks and Events

- EAAMO: Proceedings talk, "Strategic Evaluation," Boston, MA, October, 2023
- Symposium on Applications of Contextual Integrity: Proceedings talk, "Party's Over: First-Party Surveillance Through the Lens of Contextual Integrity," Toronto, Canada, September, 2023
- BIRS Workshop: Participant, "Contextual Integrity for Differential Privacy" Kelowna, British Columbia, Canada, August, 2023.
- Cornell Milstein Fellowship Program: Lecture, "When is Algorithmic Amplification Problematic?" July, 2023.
- Cornell AI, Policy and Practice: "First-party Surveillance" July, 2023.
- FAccT: Proceedings talk, "Optimization's Neglected Normative Commitments," Chicago, IL, June, 2023.
- PLSC: Workshop participant as paper-writer and discussant, "First-Party Surveillance," Boulder, CO, June, 2023.
- Columbia Knight Institute: Symposium entitled 'Optimizing for What? Algorithmic Amplification and Society.' Presenting work, "When is Algorithmic Amplification Wrongful?" New York, NY, April, 2023. [event]
- Cornell Digital Life Initiative Seminar: "When is Algorithmic Amplification Wrongful?" New York, NY, March, 2023. [event]
- Cornell AI, Policy and Practice: "When is Algorithmic Amplification Wrongful?" February, 2023.
- c3.ai: Workshop on Data, Learning and Markets Workshop, "Disparate Impact over a Sequence of Capacity-Constrained Subset Selections," Poster Session, Champaign, IL, October, 2022. [event]
- EAAMO: Queer in AI panel, October, 2022. [event]
- Cornell AI, Policy and Practice: "Accounting for Unforeseeable Machine Learning Harms via Economic Models of Product Liability," October, 2022.
- KDD: MIS2-TrueFact Workshop talk, "Collective Obfuscation and Crowdsourcing," August, 2022. [event]
- ICML: Workshop on Disinformation Countermeasures and Machine Learning, "Collective Obfuscation and Crowdsourcing," July, 2022. [event]
- ICML: Workshop on Responsible Decision-Making in Dynamic Environments, "End-to-end Auditing of Decision Pipelines," July, 2022. [video]
- Economics & Computing: Poster Session, "End-to-end Auditing of Decision Pipelines," July, 2022. [link]
- FAccT: Proceedings talk, "Four Years of FAccT: A Reflexive, Mixed-Methods Analysis of Research Contributions, Shortcomings, and Future Prospects," June, 2022. [video]
- Cornell Information Science Colloquium: "Neglected Normative Assumptions in Applied Optimization," April, 2022.
- Cornell Tech Tree Day: "Auditing Efficiency and Equity throughout an Operational Workflow," April, 2022.
- Cornell AI, Policy and Practice: "Crowdsourcing, Allocation, and Equity in NYC Parks Department Policies," April, 2022.
- Cornell Tech Course Lecture: Data Science in the Wild Guest Lecture, "Data Visualization," February, 2022.
- CUNY Experimental Philosophy Group: "On Accountability," November, 2021.
- Cornell AI, Policy and Practice: "Accountable Metrics," November, 2021.
- NeurIPS: Workshop on Resistance AI, "Dangerous Goals in ML Scoring-Decision Systems," December 2020. [event]

- Princeton ORFE Department: Invited lecture on algorithmic fairness in ORF473-FinTech Lending (prof: Margaret Holen), May 2020.
- Princeton Reunions: "Princeton in Prison: The Petey Greene Tutors" Panel, June 2019.
- Princeton Urban Studies Department: Research Symposium, May 2019. [link]
- High Meadows Environmental Institute: Research Symposium, April 2019.
- Yale Law Public Interest Colloquium: Invited as a fellow, April 2018. [event]

Work Experience

Lime San Francisco, CA Data Scientist II (prev. Data Scientist, Data Analyst Intern) 2019 - 2021 (2 years)

National Center for Access to Justice New York, NY

Arthur Liman Research Fellow, Yale Law School Jun 2018 - Aug 2018 (3 months)

U.S. Environmental Protection Agency (EPA) New York, NY

Data Science Intern Jun 2017 - Jan 2018 (8 months)

Princeton Plasma Physics Laboratory (PPPL) Princeton, NJ

Research Assistant Oct 2016 - May 2017 (8 months)

International Water Management Institute Accra, Ghana InternJun 2016 - Aug 2016 (3 months)

Princeton High School Debate Team Princeton, New Jersey

Private Debate Coach September 2015 - June 2016 (10 months)

National Symposium for Debate Minneapolis, Minnesota

Debate Teacher Jul 2015 - Aug 2015 (2 months)

Service and Volunteering

Academic Conferences

Program Committee Reviewer

○ **FAccT**: 2023 o **AIES**: 2023

Cornell University Information Science Graduate Student Association (ISGSA) New York, NY

2023-2024

o Faculty Hiring Representative: Elected position; responsible for attending faculty hiring meetings and

representing graduate student interests.

UCLA COVID Behind Bars Research Group

Los Angeles, CA 2020

• Data reporting for COVID-19 cases in ICE detention facilities: Creating a single location for COVID-19

case and death counts in ICE facilities.

Petey Greene Program

Data Science Researcher

Princeton, NJ

Tutor and Undergraduate President

2016 - 2019 (4 years)

- Bringing Education into Prisons: Tutored inside NJ correctional facilities weekly for four years.
- Undergraduate President: Led the team of 100+ tutors and organized educational programs and trainings for tutors.

Programming Skills

- Languages: Python, SQL, MATLAB, R, Java, C, html, CSS, JS, STATA
- Technologies: AWS, Sagemaker, React, Tableau

References

- Helen Nissenbaum, Professor, Information Science, Cornell Tech: hn288 [at] cornell.edu
- Jon Kleinberg, Professor, Information Science and Computer Science, Cornell University: kleinberg [at] cornell.edu
- Nikhil Garg, Assistant Professor, Operations Research and Information Engineering, Cornell Tech: ngarg [at] cornell.edu
- Miklos Racz, Assistant Professor, Operations Research and Financial Engineering, Princeton University: mkracz [at] princeton.edu