

Benjamin Laufer

Website: benlaufer.me

Email: ben.laufer@gmail.com

Phone: +1-917-628-8880

EDUCATION

- **Princeton University** Princeton, NJ
B.S. in Engineering, Operations Research and Financial Engineering, Cum Laude 2015 – 2019
 - **Minors:** Urban Studies, Environmental Studies
 - **Senior Thesis:** Compounding Injustice: History and Prediction in Carceral Decision-Making
 - **GPA:** 3.74 (general), 3.82 (department), with distinction
- **Hunter College High School** New York, NY
High School Diploma 2011 – 2015

GRANTS AND FELLOWSHIPS

- **Fulbright ETA 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 for 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

- **Best Senior Thesis in Urban Studies:** Princeton Urban Studies department thesis prize (2019) [[link1](#), [link2](#)]
- **Kenneth H. Condit Graduation Prize:** Awarded to a graduating senior at Princeton who has exhibited excellence in leadership, academic achievement and community impact (2019) [[link](#)]
- **Departmental Distinction:** Graduated *Cum Laude*, Princeton ORFE (2019)
- **Sigma Xi:** Nominated to the Scientific Research Honors Society upon graduating (2019)
- **IBM “Ponder This” Math Challenge:** Published list of monthly math challenge solvers by IBM (July 2018) [[link](#)]

PAPERS

- **NeurIPS 2020 workshop paper accepted:** Benjamin Laufer. “Abandoning Criminal Risk and Recidivism: On Dangerous Goals in ML Scoring-Decision Systems.” *NeurIPS Resistance AI Workshop*, 2020.
- **FAccT 2021 conference paper under review:** Benjamin Laufer. “Beyond Validity: Current Auditing Methods for Criminal Risk Assessments Do Not Consider Sequential Feedback Effects”. *FAccT*, 2021.
- **Working paper:** Benjamin Laufer. “Feedback Effects in Repeat-Use Algorithmic Risk Assessments”. *ArXiv*, November 2020.
- **Working paper:** Benjamin Laufer & Dounan Tang. “ROI-based Task Optimization for High-Frequency E-Scooter Fleet Operations”.
- **Undergraduate Thesis:** Benjamin Laufer. “Compounding Injustice: History and Prediction in Carceral Decision-Making”. *ArXiv*, *Princeton Mudd Manuscript Library*, April 2019.

TALKS

- **NeurIPS:** Workshop on Resistance AI, 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) *January 2019 - Present (total 1 year 6 months)*
 - **Fleet Charging and Re-balancing Dynamics:** Developed the algorithmic logic behind vehicle charging and re-balancing - optimally moving scooters from low-potential states (low battery, low-demand area) to high-performance continuously throughout the day.
 - **Demand Forecasting:** On a team of 3 data science researchers forecasting demand and optimal deployment locations for Lime’s 100,000+ small-vehicle fleet.
 - **Automated Experiment Pipeline:** Built Lime’s automated experimentation pipeline. Engineers and product managers can launch features in a randomized A/B test, and see the relevant statistical tests and estimated treatment effects.
- **National Center for Access to Justice** New York, NY
Arthur Liman Research Fellow, Yale Law School *Jun 2018 - Aug 2018 (3 months)*
 - **Data for Civil Court Accountability:** Developed data insights and continuous metric-tracking to hold civil courts accountable and help low-income and disadvantaged people access representation.
 - **CLARO Program:** Volunteered in Bronx civil court to help unrepresented litigants in debt cases.
- **U.S. Environmental Protection Agency (EPA)** New York, NY
Data Science Intern *Jun 2017 - Jan 2018 (8 months)*
 - **ML for Allocating Inspectors:** Developed ML model to optimize inspections strategy. Successfully implemented the strategy in New York and New Jersey.
 - **Extended Independent Research:** Continued to work on a joint collaboration between EPA and Princeton ORFE department on the allocation problem, under Professor Robert Vanderbei.
- **Princeton Plasma Physics Laboratory (PPPL)** Princeton, NJ
Research Assistant *Oct 2016 - May 2017 (8 months)*
 - **Nuclear Fusion Research:** Paid research assistant under Dr. Maasaki Yamada. Worked with NASA’s Magnetospheric Multiscale (MMS) spacecraft data to study Magnetic Reconnection.
- **International Water Management Institute** Accra, Ghana
Intern *Jun 2016 - Aug 2016 (3 months)*
 - **Recipient:** Princeton International Internship Program Award for research on water management and policy in Ghana.
- **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)*

FREELANCE CONSULTING

- **Deputy Data Director for a Democratic Presidential Primary Campaign (3 months):** Developed the strategy for allocating field organizers and targeting phone calls to effectively gain electoral votes.
- **Research for Lightspeed Venture Partners (2 months):** Designed and executed a research report for a venture capital company on the impact of COVID-19 on work and changes to companies’ IT needs.

VOLUNTEER EXPERIENCE

- **UCLA COVID Behind Bars Research Group** Los Angeles, CA
Data Science Researcher *Jul 2020 - Present (5 months)*
 - **Data reporting for COVID-19 cases in ICE detention facilities:** Creating a single location for COVID-19 case and death counts in ICE facilities.
 - **Transfer Project:** Using causal inference methods to determine whether ICE's transfer strategy for COVID patients helps spread the disease.
- **Petey Greene Program** 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.

ONGOING RESEARCH PROJECTS

- **Criminal Risk, Recidivism and Judicial Decisions:** Ongoing preparation of senior thesis work for conference proceedings. Using historical data dockets from Philadelphia criminal court. With Miklos Racz (advisor).
- **Research at Lime:** Working to turn my optimization work for Lime's vehicle fleet into a OR journal paper.
- **Prisons and COVID research:** Report on COVID-19 spread in ICE detention facilities. With Ishan Nagpal, Theresa Cheng, Sharon Dolovich (advisor/supervisor).
- **COMPSTAT and NYPD Civilian Complaints:** Ongoing research on policing allocation using a dataset of historical civilian complaints, which were recently released by ProPublica. With Nick Dulchin.
- **When Twitter Trends Trend:** Using Twitter API to analyze how the "trending" feature fuels a certain type of political discourse.

PROGRAMMING SKILLS

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

ART

- **Media:** Oil painting, pottery, drawing, photography, embroidery, code
- **Portfolio:** Available upon request.