

Lucas Rosenblatt

Curriculum Vitae

May 2025

PhD Candidate (4th Year)

New York University

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Education

New York University (ongoing)

PhD Candidate, 4th Year | GPA: 3.9

New York City, NY

Sept. 2021 – Present

Brown University, Honors

B.Sc. in Computer Science, B.A. English, Non-Fiction Writing | GPA: 3.8

Providence, RI

Sept. 2015 – May 2019

Awarded Senior Prize in CS

Senior Prize awarded for outstanding record in teaching, research and service

Mentors

Advised by Julia Stoyanovich and Chris Musco. Work closely with Bill Howe and Rachel Cummings.

Funding

2023 NSF Graduate Research Fellowship

March 2023 - Present

Center for Responsible AI PhD Fellowship

Sept. 2022 - Present

Publications

- Hod, S., L. Rosenblatt, and J. Stoyanovich (2025). Do You Really Need Public Data? Surrogate Public Data for Differential Privacy on Tabular Data. *arXiv preprint arXiv:2504.14368*.
- Musco, C., C. Musco, L. Rosenblatt, and A. V. Singh (2025). Sharper Bounds for Chebyshev Moment Matching with Applications to Differential Privacy and Beyond. *38th Annual Conference on Learning Theory (COLT)*.
- Rosenblatt, L., B. Han, R. Wolfe, and B. Howe (2025). Fragments to Facts: Partial-Information Fragment Inference from LLMs. *Proceedings of the 42nd International Conference on Machine Learning, Vancouver, Canada. PMLR 275, 2025*.
- Rosenblatt, L., Y. Lut, E. Turok, M. Avella-Medina, and R. Cummings (2025). Differential Privacy Under Class Imbalance: Methods and Empirical Insights. *Proceedings of the 42nd International Conference on Machine Learning, Vancouver, Canada. PMLR 275, 2025*.
- Rosenblatt, L., B. Howe, and J. Stoyanovich (2024). Are Data Experts Buying into Differentially Private Synthetic Data? Gathering Community Perspectives. *arXiv preprint arXiv:2412.13030*.
- Rosenblatt, L., J. Stoyanovich, and C. Musco (2024). A Simple and Practical Method for Reducing the Disparate Impact of Differential Privacy. *Proceedings of AAAI 2024*.
- Rosenblatt, L. and R. T. Witter (2024). FairlyUncertain: A Comprehensive Benchmark of Uncertainty in Algorithmic Fairness. *arXiv preprint arXiv:2410.02005 (under review)*.
- Witter, R. T. and L. Rosenblatt (2024). I Open at the Close: A Deep Reinforcement Learning Evaluation of Open Streets Initiatives. *Proceedings of AAAI 2024*.
- Wolfe, R., I. Slaughter, B. Han, B. Wen, Y. Yang, L. Rosenblatt, B. Herman, E. Brown, Z. Qu, N. Weber, et al. (2024). Laboratory-scale ai: Open-weight models are competitive with chatgpt even in low-resource settings. In: *Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency*, pp.1199–1210.
- Bell, A., L. Bynum, N. Drushchak, T. Herasymova, L. Rosenblatt, and J. Stoyanovich (2023). The Possibility of Fairness: Revisiting the Impossibility Theorem in Practice. *Proceedings of the Conference on Fairness, Accountability, and Transparency (ACM FAccT)*.
- Rosenblatt, L., B. Han, E. Posthumus, T. Crimmins, and B. Howe (2023). Top-down Green-ups: Satellite Sensing and Deep Models to Predict Buffelgrass Phenology. *Tackling Climate Change with Machine Learning @ NeurIPS*.
- Rosenblatt, L., B. Herman, A. Holovenko, W. Lee, J. Loftus, E. McKinnie, T. Rumezhak, A. Stadnik, B. Howe, and J. Stoyanovich (July 2023). Epistemic Parity: Reproducibility as an Evaluation Metric for Differential Privacy. *Proc. VLDB Endow.* **16**(11), 3178–3191 [**Best Paper Runner-Up**].

13. Rosenblatt, L. and R. T. Witter (2023). Counterfactual Fairness Is Basically Demographic Parity. *Proceedings of AAAI 2024*.
14. Rosenblatt, L., J. Allen, and J. Stoyanovich (2022). Spending Privacy Budget Fairly and Wisely. *Theory and Practice of Differential Privacy 2022 (@ICML)*.
15. Rosenblatt, L., L. Piedras, and J. Wilkins (2022). Critical Perspectives: A Benchmark Revealing Pitfalls in PerspectiveAPI. In: *Proceedings of the Second Workshop on NLP for Positive Impact (NLP4PI)*, pp.15–24.
16. Ammerlaan, R., G. Antonius, M. Friedman, H. S. Hossain, A. Jindal, P. Orenberg, H. Patel, S. Qiao, V. Ramani, L. Rosenblatt, et al. (2021). PerfGuard: deploying ML-for-systems without performance regressions, almost! *Proceedings of the VLDB Endowment* 14(13), 3362–3375.
17. Hossain, H. S., L. Rosenblatt, G. Antonius, I. Shaffer, R. Ammerlaan, A. Roy, M. Weimer, H. Patel, M. Friedman, S. Qiao, P. Orenberg, et al. (2020). PerfGuard: Deploying ML-for-Systems without Performance Regressions. *MLOps*.
18. Rosenblatt, L., X. Liu, S. Pouyanfar, E. de Leon, A. Desai, and J. Allen (2020). Differentially private synthetic data: Applied evaluations and enhancements. *arXiv preprint arXiv:2011.05537*.
19. Rosenblatt, L., P. Carrington, K. Hara, and J. P. Bigham (2018). Vocal programming for people with upper-body motor impairments. In: *Proceedings of the 15th International Web for All Conference*, pp.1–10.
20. Rosenblatt, L. (2017). Vocalide: An ide for programming via speech recognition. In: *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility*, pp.417–418.

Graduate teaching

Lectures, office hours and grading for Responsible Data Science course (ML) and Algorithmic ML course (theory) exploring contemporary computational methods for ML and data science at scale.

Full Course Instructor - CSGA-1017

January - May 2025

Responsible Data Science

New York City, NY

Section Leader - CSGA-1017

January 2023 - May 2024

Responsible Data Science

New York City, NY

Teaching Assistant - CSGY-6763

September 2022 - December 2022

Algorithmic Machine Learning and Data Science

New York City, NY

Service

Lead Organizer: NYC Privacy Day, Spring 2024 (at NYU, website).

Reviewer: KDD 2025, ICML 2025, FAccT 2025, ICLR 2025, AISTATS 2025, TPDP 2025, Neurips 2025, 2024, SOSA 2024, CHI 2023

Patents

System and Method for Machine Learning for System Deployments Without Performance Regressions *HM Sajjad Hossain, Lucas Rosenblatt, Gilbert Antonius, Irene Shaffer, Remmelt Ammerlaan, Abhishek Roy, Markus Weimer, Hiren Patel, Marc Friedman, Shi Qiao, Peter Orenberg, Soundarajan Srinivasan, Vijay Ramani, Alekh Jindal, (MS# 408144-US-NP)*

Work Experience

ML Engineer/Researcher

June 2019 – 2021

Microsoft AI Development Acceleration Program

Cambridge, MA

- AI rotational program serving Microsoft organizations with applied research in machine learning and data science
- Rotations: Grey System's Lab, Microsoft+Harvard OpenDP (Smartnoise), Microsoft News, Fairlearn (spring 2021)

Software Engineering Intern

Jun 2018 – Aug 2018

Microsoft Garage

Cambridge MA

- Developed machine learning approaches to object/shape detection for the Ink to Code platform

Human-Computer Interaction Researcher

Jun 2017 – Jun 2018

Carnegie Mellon University

Pittsburgh, PA

- Advised by Dr. Jeff Bigham and Dr. Kotaro Hara, researched accessible programming interfaces
- Focused on assistive technology individuals with motor impairments and/or cerebral palsy
- Published two papers detailing VocalIDE, a vocal programming interfaces

Projects

Primary maintainer for SynRD: Open Source DP Benchmark tool | *DP, Repo* June 2022 – June 2024

- Collaborate with researchers at the University of Washington and with students from UCU in Lviv.

Maintainer for Smartnoise: Open Source DP Toolkit | *DP, Pytorch* December 2019 – Present

- Provide regular code updates, documentation, and pursue new offerings.
- MWEM implementation, QUAIL ensemble model, DP GANs, metrics etc.

AI for my Life | *Undergraduate Thesis* September 2019 – Present

- Catalogued attempt to use that data and uncover “non-intuitive insights” into my life.
- Nominated for “Theories in Action,” a Brown University forum for sharing undergraduate theses

VocalIDE | *Experimental Tool, Javascript* June 2017 – May 2018

- Developed accessible programming interface for vocal programming
- Wrote system to tokenize and interpret vocal commands into Java code
- Conducted two studies to iterate on system

Empor.co | *Start-up, Full-stack iOS* June 2016 – July 2018

- Co-founded a start-up with Zachary Horvitz
- Mobile marketplace for college students to buy and exchange goods and services
- Full stack/entrepreneurial experience, ultimately disbanded the company.

Skills

Familiar with... Python, C#/C, Java, SQL, JavaScript, HTML/CSS, etc.

Tools & Libraries: numpy, pandas, pytorch, aws, react, git, azure

Spoken languages: Dutch (B1, heritage speaker) and French (A2)

Software Suites: Adobe (Premier, Photoshop, Illustrator), Logic, Maya