Lucas Rosenblatt

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lucasrosenblatt.com | github.com/lurosenb

EDUCATION

New York University (ongoing)   New York City, NY
PhD Candidate | GPA: 3.9   *Sept. 2021 – Present*

Brown University, Honors   Providence, RI
B.Sc. in Computer Science, B.A. English, Non-Fiction Writing | GPA: 3.8   *Sept. 2015 – May 2019*

Awarded Senior Prize in CS, Thesis nominated for Theories in Action
Senior Prize awarded for outstanding record in teaching, research and service

FUNDING

2023 NSF Graduate Research Fellowship
March 2023 - Present

Center for Responsible AI PhD Fellowship
Sept. 2022 - Present

PUBLICATIONS

Andrew Bell, Lucius Bynum, Nazarii Drushchak, Tetiana Herasymova, Lucas Rosenblatt, *Julia Stoyanovich.* 2023. **The Possibility of Fairness: Revisiting the Impossibility Theorem in Practice** arXiv 2302.06347. (Under Review)

Lucas Rosenblatt, *Teal Witter.* 2023. **Counterfactual Fairness Is Basically Demographic Parity.** Proceedings of the AAAI Conference on Artificial Intelligence 37.

Lucas Rosenblatt, *Bernease Herman, Anastasia Holovenko, Wonkwon Lee, Joshua Loftus, Elizabeth McKinnie Taras Rumezhak, Andrii Stadnik, Bill Howe, Julia Stoyanovich.* 2022. **Epistemic Parity: Reproducibility as an Evaluation Metric for Differential Privacy.** arXiv 2208.12700. (Under Review)

Lorena Piedras, Lucas Rosenblatt, *Julia Wilkins.* 2022. **Critical Perspectives: A Benchmark Revealing Pitfalls in PerspectiveAPI.** In the Proceedings of the Workshop on *NLP for Positive Impact* (at EMNLP 2022).

Lucas Rosenblatt, *Joshua Allen, and Julia Stoyanovich.* 2022. **Spending Privacy Budget Fairly and Wisely.** arXiv 2204.12903. TPDP: Workshop on the Theory and Practice of Differential Privacy (at ICML 2022).

Alekh Jindal H M Sajjad Hossain, Marc T Friedman, Hiren Patel, Shi Qiao, Soundar Srinivasan, Markus Weimer, Remmelt Ammerlaan, Lucas Rosenblatt, *Gilbert Antonius, Peter Orenberg, Vijay Ramani, Abhishek Roy, Irene Shaffer.* 2021. **PerfGuard: Deploying ML-for-Systems without Performance Regressions, Almost!** Proceedings of the VLDB Endowment, Volume 14, Issue 13, September 2021.

Lucas Rosenblatt, *Xiaoyan Liu, Samira Pouyanfar, Eduardo de Leon, Anuj Desai, Joshua Allen.* 2020. **Differentially Private Synthetic Data: Applied Evaluations and Enhancements.** arXiv 2011.05537 Open Review

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.* 2020. **PerfGuard: Deploying ML-for-Systems without Performance Regressions** MLOps Systems 2020, Austin, USA.

Lucas Rosenblatt, *Patrick Carrington, Kotaro Hara, and Jeffrey P. Bigham.* 2018. **Vocal Programming for People with Upper-Body Motor Impairments.** In Proceedings of the Internet of Accessible Things (W4A '18). Association for Computing Machinery, New York, NY, USA, Article 30, 1-10. DOI:https://doi.org/10.1145/3192714.3192821

Lucas Rosenblatt. 2017. **VocalIDE: An IDE for Programming via Speech Recognition.** In Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '17). Association for Computing Machinery, New York, NY, USA, 417-418. DOI:https://doi.org/10.1145/3132525.3134824; (*2nd place student research competition*)

Graduate teaching

Regular office hours and grading for advanced theory course exploring contemporary computational methods that enable machine learning and data science at scale

Section Leader - CSGA-1017   January 2023 - May 2023
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*

Undergraduate teaching

Held regular office hours, graded, and most importantly spent time instructing new CS concentrators.

Teaching Assistant - CS1300   December 2017 - May 2018
Graphics and UI   *Providence RI*

Teaching Assistant - CS0170   Sept 2017 - December 2017
Integrated Introductory Sequence   *Providence RI*

Volunteering

Intro to Python Coding Class   September 2022 – present
At Brooklyn International High School (BIHS)   *Brooklyn, NY*
- After school program where I teach high school students how to program in python interactively.

We Are AI Learning Circle   February 2022 – present
At Queens Public Library, Long Island City   *Queens, NY*
- Ran five session public access adult learner course on general AI.
- As part of ongoing serious, more similar sessions will be launched at NYU and other venues.

Minecraft Coding Class   September 2020 – November 2020
At Jewish Community Center, for kids aged 8-10   *Boston, MA (Remote)*
- In response to COVID, wanted to provide more educational opportunities for kids stuck at home
- Taught kids remotely how to program in python using Minecraft Education Edition

BUILD Boston   September 2019 – March 2020
Mentorship program for under-resourced high schoolers   *Boston, MA*
- Mentored Freshman at *Another Course to College* (Boston area high school) through the creation of their entrepreneurial project
- Taught students laser cutting and Adobe Illustrator, advised on public speaking and entrepreneurship

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

IT and Media Worker (work-study)   Sept 2017 – May 2019
Watson Institute of International Relations, Brown University   *Providence, RI*
- Filmed talks and presentations by notable world leaders, edited Watson Institute Podcast

IT Service Center Technician (work-study)   Sept 2015 – May 2017
CIT, Brown University   *Providence, RI*
- Rented out film, audio and miscellaneous equipment, took inventory, assisted students/staff with computer issues.

PROJECTS

Primary maintainer for SynRD: Open Source DP Benchmark tool | *DP, Repro*   June 2022 – Present
- Collaborate with researchers at the University of Washington and with students from UCU in Lviv.

Maintainer for Smartnoise: Open Source DP Toolkit | *Differential Privacy, 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.

FILMS

The Word Factory: *Cinematographer*, Winner Deaf Rochester Film Festival "Most Original Idea"
Mouth Breather: *Cinematographer*, Honorable Mention LA Underground Film Forum
Luke: *Assistant Director*, Brown Motion Pictures

SKILLS

Programming languages: Python, C#/C, Java, SQL, JavaScript, HTML/CSS, etc.
Tools & Libraries: numpy, pandas, pytorch, react, flask, git, Azure
Spoken languages: Dutch (heritage speaker, proficient) and French (A2 Level)
Software Suites: Adobe (Premier, Photoshop, Illustrator), Logic, Maya