Harold Triedman

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EDUCATION

Cornell Tech

New York, NY Sep 2024 – Present • Pursuing a doctorate degree in Computer Science at Cornell Tech. I conduct research into the intersections of security, privacy, and AI with Vitaly Shmatikov. My focuses are on red-teaming AI systems, understanding how privacy is operationalized in practice, and explaining cryptographic notions of privacy in accessible terms.

Brown University

- B.S. in Computer Science and B.A. in History, graduated magna cum laude in December 2020; GPA 3.93/4.00
- Relevant coursework **CS**: Computational Theory, Algorithms for the People, Systems Security, Cryptography; History: History of Privacy Policy, History of Economic Thought

TECHNICAL EXPERIENCE

Data Consultant, Wikimedia Enterprise

• Currently building a high-quality enterprise pageview trend tool using open-source and privatized Wikimedia pageview data.

Senior Privacy Engineer, Wikimedia Foundation

- Built organizational capacity to use differential privacy in production data releases at Wikipedia (the 5th-largest website in the world, with tens of billions of monthly visits). Successfully published five separate large-scale data releases, increasing the amount of publicly-available page view and editor data by orders of magnitude, with more profitable data releases in progress. DP work has also been presented at leading privacy conferences.
- Created, tested, wrote, and validated multiple privacy- and security-related policies and workflows pertaining to data management and governance, encompassing collection, retention, and publication of data, including sensitive geolocated data.
- Other responsibilities included regular privacy product reviews and privacy mitigations, as well as contributing to work in the realms of responsible AI, open-source dataset creation, anti-surveillance, and anti-censorship tech.

Data Intern, New Hampshire Democratic Party

Directly shaped decision-making processes among party leadership by conceptualizing, deploying, monitoring, and assessing ML algorithms to order and prioritize tens of thousands of voter and volunteer calls among NH voters. Used BigQuery and Data Studio to build reports analyzing the effectiveness of the NHDP's campaign.

Algorithmic Recommendations Intern, The New York Times New York, NY - Jun - Aug 2019

Created a 5% increase in recipe click-through rate by independently conceptualizing, building, and validating new algorithmic approaches to recipe recommendation for 600,000+ NYT Cooking users. Worked with algorithmic and experimental design, production-scale data systems, and A/B testing.

IT and Data Security Consultant, Political Campaigns

- Boosted online audience size by 80% and protected digital assets as an aide on Dan Feehan's congressional campaign in the Minnesota 1st Congressional District, one of the most competitive races in the country. My focus was on organizational cybersecurity, data analytics and targeting, field organizing, and social media content creation.
- Collaboratively helped develop and enact the IT and data security plan for Sunrise Movement. Admined Sunrise's GSuite, led a threat analysis audit, and helped oversee digital security upgrades for 100+ staff and volunteers.

Researcher, ELVO Machine Learning Research

Founding member of a high-impact medical AI research team studying automated diagnosis of large strokes using machine learning in order to decrease time to surgical intervention and improve patient outcomes. Contributed to a paper published in Radiology, the leading journal in the field.

WRITING and LEADERSHIP

Technology Fellow, FASPE

Part of the inaugural class of design and technology fellows participating in FASPE (Fellowships at Auschwitz for the Study for Professional Ethics). In Germany and Poland for several weeks, I studied historical examples of Nazi cooptation of technologists, architects, and designers and debated the present and future of tech ethics.

Providence, RI • Sep 2016 – Dec 2020

Remote • Apr 2021 – Aug 2024

Remote • Oct 2024 – Present

Remote Iun – Aug 2020

Providence, RI • Jun 2018 – Jun 2019

Across the US • Aug 2018 – Dec 2019

Germany and Poland • May 2022 - Jun 2022

Contributing Editor, Reboot

 Writer and editor for a nonprofit magazine on critical techno-optimism. Pieces include: a deep dive into Wikipedia's algorithmic transparency efforts, a critique of effective altruism and longtermism, a reported piece on the politics of the energy transition in southern Louisiana, an essay about the politics and psychology of privacy extremophiles.

Head Teaching Assistant for CS for Social Change

• Hired staff, developed a CS ethics curriculum, and taught a high-level course. Facilitated experiential learning partnerships with nonprofits and research groups. Helped produce over 30 pieces of independent investigative data reporting on the opioid crisis in Rhode Island, with a published piece on a local opioid factory in The Public's Radio.

Ethics Teaching Assistant Program

Co-wrote and designed an ethically-engaged curriculum for a 370-person deep learning class for Brown's Responsible CS program. Conducted research on program effectiveness, resulting in policy recommendations for the 2020-21 school year and a paper published in the SIGCSE Technical Symposium 2021.

Friday Night Jews

 Helped lead a grassroots Brown University Jewish group that facilitated conversation across the political spectrum, and also organized a national network of similar independent groups. Led a small team of students to self-fund and put on a conference for over 120 Jewish students from across the country in September 2019.

Writer, The College Hill Independent

• Writer for The College Hill Independent - published reporting on Providence's tax laws, China's Social Credit System, and ecological concerns in Narragansett Bay.

PUBLICATIONS (reverse chronological order)

Academic publications and presentations:

- "SPINACH: SPARQL-Based Information Navigation for Challenging Real-World Questions," co-author (pending at EMNLP 2024, arXiv)
- "Publishing Wikipedia usage data with strong privacy guarantees," co-author and presenter (TPDP 2023, arXiv)
- "Publishing Wikipedia Project Usage Data with Strong Privacy Protections and without Tracking," presenter (PEPR, 2022)
- "A New Model for Weaving Responsible Computing Into Courses Across the CS Curriculum," co-author and presenter, (SIGCSE, 2021)
- "Detecting Large Vessel Occlusion at Multiphase CT Angiography by Using a Deep Convolutional Neural Network," research assistant and co-author (Radiology, 2020)

Popular press publications:

- "The anonymous world of 'extreme privacy'," interviewee (Marketplace, 2024)
- "Threat Model," writer (Reboot, 2023)
- "Port Paradox," editor (Kernel, 2023)
- "Towards Ineffective Altruism," writer (Reboot, 2022)
- "Where Algorithmic Transparency Meets Community", interviewee (Reboot, 2021)
- "For nearly a decade, two RI opioid manufacturers made billions of opioid doses," writer (The Public's Radio, 2021)
- "Nine years, 329 million pills," co-writer (Brown **Opioid Journalism Project**, 2020)
- "The opioid influencers," writer (Brown Opioid Journalism Project, 2020)
- "What Brown Could Pay," co-writer (The College Hill Independent, 2019)
- "Sealing the Deal," writer (The College Hill Independent, 2019)
- "A Future You Can Believe In," writer (The College Hill Independent, 2018)

RELEVANT SKILLS and INTERESTS

- Technical proficiencies: differential privacy, cryptography, machine learning, Python, Golang, C, Google Cloud, BigQuery, Docker, and organizational cybersecurity
- Language proficiencies: Mandarin Chinese (intermediate literacy, intermediate spoken fluency; 2017 Princeton in Beijing fellow) and Spanish (beginner literacy, intermediate spoken fluency)
- Research proficiencies: critical reading and writing; experimental design; interviewing and data journalism
- **Certification:** IAPP Certified Information Privacy Manager (CIPM)
- Other Interests: Music, specifically jazz and classical piano; racial and economic social justice; technology ethics; long-distance running

Remote • Nov 2021 – Present

Providence, RI • Jun 2019 – Jun 2020

Providence, RI • Dec 2019 – Dec 2020

Providence, RI • Jan 2017 – Jun 2020

Providence, RI • Jan 2018 – Dec 2020