Anna Harbluk Lorimer

annalorimer@uchicago.edu | University of Chicago | www.annalorimer.com

RESEARCH INTERESTS
Privacy Enhancing Technologies (PETs), censorship-circumvention, internet measurement, internet governance

EDUCATION
PhD, University of Chicago Department of Computer Science, 2021 - Present, *Supervised by Professor Nick Feamster*
Bachelor of Computer Science, Honours, Co-operative Program, 2013-2019, University of Waterloo

REFEREED PUBLICATIONS
Anna Harbluk Lorimer, Rob Jansen, Nick Feamster**, Extended Abstract: Traffic Splitting for Pluggable Transports,** *FOCI 2024*
https://www.petsymposium.org/foci/2024/foci-2024-0004.pdf
Anna Harbluk Lorimer, Lindsey Tulloch, Cecylia Bocovich, Ian Goldberg, **OUStralopithecus: Overt User Simulation for Censorship Circumvention,** *WPES '21: Proceedings of the 20th Workshop on Workshop on Privacy in the Electronic Society November 2021*
https://doi.org/10.1145/3463676.3485604

OTHER PUBLICATIONS
Nick Feamster, **Anna Harbluk Lorimer,** Molly Offer-Westort, **AI-Generated Content Meets AI Moderation: Toward Trustworthy Governance of Online Speech,** Becker Friedman Institute For Economics AI in Social Science Conference 2025
Philipp Winter, **Anna Harbluk Lorimer,** Peter Snyder, Benjamin Livshits, **Security, Privacy, and Decentralization in Web3**
https://arxiv.org/pdf/2109.06836

POSTERS
Anna Harbluk Lorimer, Prateek Mittal, Nick Feamster (2022), **Investigating QUIC's Potential Impact on Censorship Circumvention**, CCS '22 https://dl.acm.org/doi/10.1145/3548606.3563519

COMMUNITY SERVICE
PETS Artifact Review Committee, 2026, https://petsymposium.org/cfp25.php
PETS Artifact Review Committee, 2025, https://petsymposium.org/cfp25.php
FOCI Censorship Session Chair, 2025, https://foci.community/
FOCI Program Committee, 2025, https://foci.community/
PETS Poster Session Chair, 2024, https://petsymposium.org/cfp24.php
PETS Artifact Review Committee, 2024 https://petsymposium.org/artifacts.php
PETS Artifact Review Committee, 2023 https://petsymposium.org/artifacts.php
CCS Artifact Review Committee, 2023, https://www.sigsac.org/ccs/CCS2023/orgs-artifact.html
PETS Artifact Review Committee 2022, https://petsymposium.org/artifacts.php
Usenix Security '21 Artifact Evaluation Committee, https://www.usenix.org/conference/usenixsecurity21/call-for-artifacts
*Con Program Committee Chair 2018, 2019 www.starcon.io
University of Waterloo Women in Computer Science Undergraduate Committee, 2015 – 2017

TEACHING
Teaching Assistant, *CMSC 33260 Internet Censorship and Online Speech*, University of Chicago, Fall 2025
Teaching Assistant, *CMSC 33260 Internet Censorship and Online Speech*, University of Chicago, Summer 2025
Teaching Assistant, *CMSC 33260 Internet Censorship and Online Speech*, University of Chicago, Winter 2023
Computer Science Instructor, *University of Chicago Youth Internship Program*, University of Chicago, 2023
Lab Coordinator, *Data Science Institute Summerlab*, University of Chicago, 2022

AWARDS
HotPETS 2025 Runner Up for Best Talk, Privacy Enhancing Technologies Symposium 2025, Washington DC

PROFESSIONAL EXPERIENCE
Research Intern, Brave Software, 2021
- Collected and analyzed data of Ethereum wallet ID leaks
- Modified an existing Ethereum wallet management tool to obfuscate Ethereum wallet IDs

Senior Research Analyst, University of Chicago, NOISE Lab, 2020 - 2021
Supervised by Professor Nick Feamster
- DNS privacy analysis using machine learning techniques
- Defences against DNS fingerprinting using traffic splitting techniques

Undergraduate Research Assistant, University of Waterloo Cryptography, Security, and Privacy Lab (CrySP), 2017 - 2019
Supervised by Professor Ian Goldberg
- Collaborated with lab members through weekly meetings to implement Slitheen, an anti-censorship decoy-routing system
- Improved the usability by adding Slitheen functionality to FireFox by modifying the FireFox package and creating a Debian package
- Used Python and Selenium to write an Overt User Simulator (OUS) by automating web browsing in Firefox to mimic normal web browsing resulting in resistance to browser fingerprinting
- Designed and conducted experiments to evaluate the OUS implementation and analyzed the results

Privacy Engineering Intern, Square, 2019
- Implemented a custom Snowflake query parser to extract data access and lineage information
- Integrated Snowflake query analysis into Square's fork of Lyft's open source data dictionary Amundsen
- Prototyped a micro-philanthropy platform for Square virtual terminal and web

Product Security Intern, New Relic, 2018
- Integrated security review requests into Slack using Ruby and the JIRA API to improve the Security Team's security review process
- Scraped the New Relic sites to determine which cookies are deployed for compliance with national and international privacy laws
- Contributed to security reviews of new products and gave feedback about how products could be improved to be more secure
- Verified vulnerabilities submitted through HackerOne and awarded payouts to hackers for valid reports
- Participated in on-call rotation to answer developers and non-technical staff's questions about security and triage incidents
- Led an internal workshop that introduced participants to the fundamentals of Web Application hacking (SQL Injection and parameter tampering) to make security more accessible and understandable to engineers and non-engineers within the company

Security Intern, NCC Group, 2018
- Reviewed web applications for security concerns such as XSS, command injection, path traversal vulnerabilities, open redirects, and session hijacking via CTF-style trainings
- Reviewed C code for vulnerabilities such as buffer overflow, integer overflow, timing, and string format vulnerabilities
- Fuzzed and reverse engineered NEXX WT3020 Firmware to discover vulnerabilities caused by overflows, malformed packets, command injection, XSS, unhandled input etc.
- Implemented a flash programmer using Arduino and SPI to pull firmware off a flash chip in order to recover the device
- Presented findings in the WT3020 to the Kitchener-Waterloo Cybersecurity Meetup

Founder, Speaker & CFP Director, StarCon, 2017 – 2019
- Co-founded a single-track, lightning talk conference to give speakers a platform to share their interest and passion for technology in a way that inspires others to do the same
- Booked keynote speakers and coordinated their travel arrangements
- Created the CFP process and led a Program Committee to ensure quality of conference content

Software Developer (DevOps), Arctic Wolf Networks, 2017
- Implemented alerting for EC2 instances using the AWS API and Nagios to prevent development environment failures such caused by instance retirement
- Designed and built IT monitoring systems using the Python Threading Library, Nagios CGI and ElasticSearch to facilitate monitoring of internal services
- Implemented infrastructure rules using Chef to automate new IT infrastructure features
- Wrote services to execute commands on devices via DNS Spoofing to enable remote work on client networks
- Created system and integration tests using Lettuce to expand unit testing for new features

Junior Software Developer, IBI Intelligent Systems, 2016
- Developed multi-threaded software to schedule and distribute work across multiple servers which increased throughput
- Implemented the publish/subscribe pattern over an enterprise bus to collect data from microwave radar detectors to adjust speed signs on roads using the C# Task Parallel Library and the Async/Await pattern to implement the to improve performance
- Created new AngularJS web application with TypeScript to replace a desktop version of client-side software which reduced user frustration

Software Developer, Audiobooks.com, 2015
- Implemented new features written in PHP, JavaScript and JQuery for the Audiobooks.com web application to improve user experience
- Optimized extraction from a MySQL database by retrieving only the necessary data and rewriting queries to improve the efficiency internal tooling

Software Quality Assurance Tester, Dejero Inc, 2015
- Project lead for NewsBook Mac (OSX Application) testing
- Tested Windows Embedded, iOS, OSX and Web Applications
- Performed system, unit, regression, load and function tests to improve user experience
- Isolated complex software and hardware bugs to improve product quality

Mentor, Secretary, Office Manager, Women in Computer Science Undergraduate Committee, 2015 – 2017
- Mentored incoming committee members in event planning, working with sponsors and diversity initiatives in weekly meetings
- Spearheaded efforts to encourage students to work in Computer Security by running Capture the Flag competitions
- Managed a team of nine people to run weekly academic and social events such as workshops and discussion groups

INVITED TALKS & WORKSHOPS

Guide to Undergraduate Research, WiCS, University of Waterloo, September 2019

<Redacted>: How Censorship Works on the Internet, Alt-Tab University of Waterloo, November 2018

Upper Year and Graduate Studies Panel, Women in Computer Science University of Waterloo, October 2018

Security Internships: Bringing Up the Next Generation of Hackers, BSidesTo, September 2018

Workshop on Ethical Technology, Hack the North, September 2018

Web Hacking 101, New Relic Portland, August 2018

Security Internships: Bringing Up the Next Generation of Hackers, OWASP Portland, August 2018

Hacking 101: Tools of the Trade, Kitchener-Waterloo Cybersecurity Meetup, April 2018

Zip, Zip, Oh no!, Hello!Con, University of Toronto, February 2018

Who are Alice and Bob? Introduction to Security, Hack the North, September 2017

Pop and (B)Lock(chain), Communitech Technical Chats for Women in technology P2P, April 2017

CodeLikeAGirl Scratch Workshop, Oakville Public Library, February 2017

WiCS Co-op Panel, University of Waterloo, January 2016, January 2017

WiCS Orientation: What's the Deal with Co-op?, University of Waterloo, September 2016, September 2017

Introduction to Git and Open Source Software, University of Waterloo, March 2016

MEDIA & PRESS COVERAGE
Ladies of StarCon, Women && Tech, April 2018, http://www.womenandtech.com/interview/starcon/

SOFTWARE
Slitheen, https://crysp.uwaterloo.ca/software/slitheen/

- Slitheen is a new proposal for a decoy routing system
- Slitheen provides a strong defense against both active and passive attacks by requesting overt, allowed content and replacing the leaf resources of this content with censored material

WiCS W18 CTF
- Implemented a vulnerable web application using Flask to teach XSS, path traversal, SQL Injection, and request tampering exploits
- Created cryptography, reverse engineering, and pwn challenges

WiCS Website, https://github.com/wics-uw/website
- Contributed to the WiCS Website open source project using Git, Pelican and Markdown once a week
- Reviewed Pull Requests to mentor new contributors and improve the quality of content

VOLUNTEERING
WiCS Capture The Flag, University of Waterloo, November 2016, February 2017, July 2017, March 2018, July 2018

Open House Women in Computer Science Panel, University of Waterloo, January 2017, March 2018

AWARDS AND SCHOLARSHIPS

ACM Travel Grant, $1100 USD, November 2022

John Crerar Scholarship, $5000 USD, September 2021

Mathematics Endowment Fund Grant to attend !!con, $540 CAD, May 2018

Mathematics Endowment Fund Grant to attend SecTor, $700 CAD, April 2017

University of Waterloo Women in Computer Science Grace Hopper Scholarship, $2000 CAD, October 2016

University of Waterloo Women in Computer Science CAN-CWIC Scholarship, $100 CAD, January 2016

Shortlisted for Square College Code Camp, N/A, August 2015

University of Waterloo President's Scholarship, $2000 CAD, September 2013