

Nicole Gerzon

(201) 694-1960 ♦ gerzon.n@northeastern.edu ♦ [linkedin.com/in/nicole-gerzon](https://www.linkedin.com/in/nicole-gerzon) ♦ [nicolegerzon813.github.io](https://github.com/nicolegerzon813)

EDUCATION

Northeastern University, Cybersecurity and Privacy Lab , Boston, MA	Sept. 2024 - present
<i>PhD Student in Cybersecurity</i>	<i>GPA: 4.00/4.00</i>
Advised by Dr. Alan Mislove and Dr. Piotr Sapieżyński	
Northeastern University, Khoury College of Computer Science , Boston, MA	Sept. 2019 - May 2024
<i>Candidate for Bachelor of Science in Cybersecurity</i>	<i>GPA: 3.92/4.00</i>

ACADEMIC RESEARCH

Spotify Recommendations (in progress)	July 2025 - present
- Investigating Spotify's podcast recommendation algorithm to uncover the underlying structure of recommendations and how user activity affects episode and show recommendations.	
Privacy in Connected Vehicles (under submission)	Jan. 2024 - present
- Conducted a comprehensive analysis of data generated by connected vehicles - Reverse-engineering mobile and in-vehicle apps to determine how personal/vehicle data is collected & processed	
<u>Quantifying Sandwiching MEV on Jito: Measurement of Solana's Leading Validator Client</u>	Jan. - Oct. 2025
<i>Published at AMC IMC 2025</i>	
- Reverse engineered hidden APIs to collect 4 months worth of otherwise opaque Jito-Solana transaction data, identifying over 500k Sandwiching MEV attacks, over \$7.7 million in cumulative user losses. - Found evidence of	
<u>When For You Isn't "For You": Measuring User Agency in TikTok's Algorithmic Feed</u>	Oct. 2022 - May 2026
<i>Published at ICWSM 2026</i>	
- Developed methods for TikTok algorithmic audits, distinguishing when personalization is taking effect, and how to trigger algorithm rabbit holes	
<u>Track You: A Deep Dive into Safety Alerts for Apple AirTags</u>	Mar. 2022 - July 2023
<i>Published at PETS 2023</i>	
- Created methods to analyze the underlying structure and characteristics of Apple's FindMy network infrastructure - Developed a process for creating stealthy, counterfeit AirTags and linking them to real keys, demonstrating flaws in Apple's data storage and security protocols	
<u>Measurement and Analysis of Implied Identity in Ad Delivery Optimization</u>	Jan. 2021 - Oct. 2022
<i>Awarded Distinguished Long Paper at AMC Internet Measurement Conference 2022</i>	
- Discovered ad delivery is skewed based on demographics, where images of white people are delivered less to Black people, supporting a need for increased diversity in advertising	

WORK EXPERIENCE

Texas Office of the Attorney General , Austin, TX	
<i>Cybersecurity Intern, Child Support Division</i>	Aug. 2023 - Aug.2024
- Facilitated compliance audits for IRS, CJIS, and various state-wide regulatory requirements - Validated implementation and ensured documentation of NIST, FedRAMP, and TexRAMP security controls and policies across IT organization and third party vendors - Scanned for and analyzed risk of open vulnerabilities across division infrastructure and state-wide offices for patch management purposes and presenting security information in weekly advisory board meetings	
Liberty Mutual , Portsmouth, NH	
<i>Cybersecurity Intern - Threat Defense and Response Team</i>	June 2022 - Aug 2022
- Aided in machine hardening efforts by auditing usage and structure of unsigned, insecure scripts across all 50,000 company machines using CrowdStrike (PSFalcon/Powershell) - Proposed and implemented company-wide system rules for restricting unauthorized command line use.	