

# Alexandra Nisenoff

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anisenoff.github.io

## EDUCATION

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### Carnegie Mellon University

Incoming Ph.D. student, Societal Computing

Advisors: Lorrie Cranor and Nicolas Christin

Starting August 2022

Pittsburgh, PA

### University of Chicago, *Summa Cum Laude*

B.S. in Computer Science (specialization in computer security) and Astrophysics

Overall GPA: 3.737

September 2017 - June 2021

Chicago, IL

## RESEARCH

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### University of Chicago Department of Computer Science, SUPERgroup

*Research Assistant for Prof. Blase Ur*

July 2019 - Present

Chicago, IL

- Developing code to automate the detection of website breakage due to tracking protection tools using Python, JavaScript, Puppeteer, and Selenium
- Parsed over 1TB of data breaches and performed password transformations for study on password reuse
- Created a targeted guessing algorithm to guess a user's 6-digit PIN after "upgrading" from a 4-digit PIN

### University of Chicago Data Science Institute

*Research Assistant for Prof. Nick Feamster*

August 2020 - Present

Chicago, IL

- Designing and coordinating user study on encrypted DNS settings on mobile devices and in browsers
- Providing training on LaTeX and Qualtrics to high school research assistant

### University of Chicago Department of Astronomy and Astrophysics

*Research Assistant for Prof. Vikram Dwarkadas*

October 2019 - Present

Chicago, IL

- Designing and building an online database for radio supernova data (PHP, MySQL, and JavaScript)
- Updated Supernova X-Ray Database to be compatible with a newer version of PHP and fixed preexisting XSS vulnerabilities

### Max Planck Institute for Security and Privacy

#### Human Factors in Security and Privacy Group

*Research Assistant for Prof. Yasemin Acar*

June 2021 - September 2021

Virtual

- Created a selenium testing framework for a large scale internet measurement study on the issues that occur when password managers interact with websites

### University of Chicago Department of Geophysical Sciences

*Lab Technician for Prof. Elisabeth Moyer*

June 2018 - March 2019

Chicago, IL

- Optimized data reduction program in IDL, decreasing runtimes by over 95% on typical output files
- Operated laser spectrometer to gather water isotopologue ratios in the atmosphere
- Implemented additional software capabilities for the spectrometer into existing LabVIEW code

## PRESENTATIONS & PUBLICATIONS

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### Peer-Reviewed Publications

- Collins Munyendo, Philipp Markert, **Alexandra Nisenoff**, Miles Grant, Elena Korkes, Blase Ur, Adam Aviv. "The Same PIN, Just Longer." *On the (In)Security of Upgrading PINs from 4 to 6 Digits*. 2022. USENIX Security.

- **Alexandra Nisenoff**, Nick Feamster, Madeleine A Hoofnagle, Sydney Zink. *User Expectations and Understanding of Encrypted DNS Settings*. 2021. NDSS DNS Privacy Workshop.

## Other

- **Alexandra Nisenoff**, Vikram V. Dwarkadas, Mathias C. Ross. *Supernova X-Ray Database (SNaX) Updated to Ensure Long-term Stability*. 2020 Res. Notes AAS 4 195.
- **Midstates Undergraduate Research Symposium**, Poster Presentation  
Study of UChicago Affiliates' Vulnerability to Password Guessing Attacks. Nov. 16, 2019
- **UCISTEM Undergraduate Research Symposium**, Poster Presentation  
Study of UChicago Affiliates' Vulnerability to Password Guessing Attacks. Oct. 11, 2019

## AWARDS AND GRANTS

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- National Science Foundation Graduate Research Fellowship, 2022
- Departmental Honors (Computer Science), 2021
- Harper Award for Exceptional Performance in a Course, *Engineering Interactive Electronics onto Printed Circuit Boards*, 2021
- Enrico Fermi Scholar, *GPA in top 5% of major over past 5 years (only eligible 3rd and 4th year of college)*, 2020 and 2021
- Dean's List, 2017-2020
- Dean's Fund Grant, *\$1,500 UChicago grant for research expenses*, Fall 2020
- Jeff Metcalf Fellowship Grant, *\$3,750 UChicago grant for summer internships*, Summer 2020
- Diversity Grant to USENIX Enigma, January 2020

## ACTIVITIES

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**University of Chicago Department of Computer Science** January - March 2021 & 2022  
*Course Staff for Introduction to Computer Security ('21: 86 students, '22: 109 students)* Chicago, IL

- Assisted with the development of computer security focused assignments
- Responded to student questions on class discussion board about computer security concepts, ran office hours, and graded assignments

**Expanding Your Horizons Chicago** August 2019 - March 2022  
*Organizing Committee Member* Chicago, IL

- Organizing student recruitment for annual STEM symposium for middle school girls

**UChicago Maroon Newspaper** September 2017 - June 2021  
*Photo Section Editor and Staff Photographer* Chicago, IL

- Ran staff meetings, photo critiques, and handled various logistical tasks for the photo section
- Took photos at protests, guest lectures, concerts, sports events, and art exhibits
- 2019 ICPA Award for Excellence in IL College Newspapers: General News Photo 2nd place

## SKILLS

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Programming:

- Proficient: Python, C, LabVIEW, and IDL
- Experienced: JavaScript, PHP, HTML/CSS, and R

Applications: Adobe Lightroom, Qualtrics, LaTeX, and Wireshark