

Alexandra Nisenoff

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anisenoff.github.io

EDUCATION

University of Chicago, *Summa Cum Laude*

September 2017 - June 2021

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

Chicago, IL

Overall GPA: 3.737

RESEARCH

University of Chicago Department of Computer Science, SUPERgroup

July 2019 - Present

Research Assistant for Prof. Blase Ur

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

August 2020 - Present

Research Assistant for Prof. Nick Feamster

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

October 2019 - Present

Research Assistant for Prof. Vikram Dwarkadas

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

June 2021 - September 2021

Human Factors in Security and Privacy Group

Virtual

Research Assistant for Prof. Yasemin Acar

- 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

June 2018 - March 2019

Lab Technician for Prof. Elisabeth Moyer

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

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

- 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

University of Chicago Department of Computer Science January - March 2021 & 2022
Course Staff for Introduction to Computer Security ('21: 86 students, '22: 120 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 - Present
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

College Core Tutor Program January 2020 - March 2020
Peer Tutor Chicago, IL

- Assisted 5-10 students per session with introductory computer science classes in Python, C, and Typed Racket

SKILLS

Programming:

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

Applications: Adobe Lightroom, Qualtrics, LaTeX, and Wireshark