Noemi Glaeser

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Education

Ph.D., Computer Science *expected December 2024*
University of Maryland (UMD), *College Park, MD*
& Max Planck Institute for Security and Privacy (MPI-SP), *Bochum, Germany*
Dissertation: "Practical Cryptography for Blockchains: Secure Cryptographic Protocols with Minimal Trust"

M.S., Computer Science *May 2021*
University of Maryland, *College Park, MD*

B.S., Mathematics & B.S.C.S., Computer Science • *summa cum laude* *May 2019*
Minor, Music & Flute performance certificate
University of South Carolina Honors College, *Columbia, SC*

Selected Publications

* = authors listed in alphabetical order

In submission

[-] **Hot-Cold Threshold Wallet Backups with Proofs of Remembrance**
*S Garg, N Glaeser, A Jain, M Lodder, H Montgomery

Workshop Papers

[6] **Cicada: A framework for private, non-interactive on-chain auctions and voting**
N Glaeser, I Seres, M Zhu, J Bonneau
Workshop on Cryptographic Tools for Blockchains (CTB 2024) at Eurocrypt 2024

Conference Papers

[5] **Short Paper: Naysayer Proofs**
I Seres, N Glaeser, and J Bonneau
FC 2024; also appeared at CTB Workshop 2024

[4] **Universally Composable NIZKs: Circuit-Succinct, Non-Malleable and CRS-Updatable**
*B Abdolmaleki, N Glaeser, S Ramacher, D Slamanig
IEEE CSF 2024

[3] **Efficient Registration-Based Encryption**
*N Glaeser, D Kolonelos, G Malavolta, A Rahimi
ACM CCS 2023

[2] **Foundations of Coin Mixing Services**
*N Glaeser, M Maffei, G Malavolta, P Moreno-Sanchez, E Tairi, SAK Thyagarajan
ACM CCS 2022

[1] **Access control for a database-defined network**
N Glaeser and A Wang
IEEE Sarnoff Symposium 2016

Other……

[B] **Key distribution on blockchains: the case for registration-based encryption**
N Glaeser
a16zcrypto blog post

[A] **Packet: Cryptographic secret sharing**
N Glaeser
UMD Girls Talk Math summer camp

Service

Program Committee

FC (2025, 2024), ISC (2024), IEEE S&P Poster PC (2023), NDSS Student Support Committee (2023)

External Reviewer

CANS (2024), ACISP (2024), IEEE S&P (2024), IACR Crypto (2023), ACM CCS (2023, 2020), PETS (2023.3, 2022.4, 2022.1), PKC (2022)

Founder & Organizer

UMD CS Graduate Peer Mentoring Program *fall 2021-present*

Mentor

UMD CS Graduate Peer Mentoring Program *fall 2021-spring 2024*
UMD Iribe Initiative for Inclusion & Diversity in Computing (I4C) *fall 2020*

Research Positions

a16z crypto *summer 2023*

Research Intern, supervised by Joseph Bonneau

Conducted fundamental research in cryptographic protocols for blockchains [5,6] and helped portfolio companies with technical research problems. Also wrote an informational post [B] for the company's blog.

NTT Research, Inc. *summer 2022*

Research Intern, supervised by Sanjam Garg

Working on a scheme and formal framework for threshold cryptocurrency wallets in the hot-cold paradigm with strong trust and recovery guarantees (with Linux Foundation & LIT Protocol).

Fermi National Accelerator Laboratory, Particle Astrophysics *summer 2018*

Grace Hopper Computing Intern

Improved efficiency of the Dark Energy Survey's image processing pipeline for optical counterparts of gravitational wave events from avg. 5-8 hrs to 30 min (10-16x). Published two papers. Code available on GitHub at SSantosLab/gw_workflow (Python, Bash).

Temple University Computer Science Department *summer 2016*

NSF Research Experience for Undergraduates (REU)

Implemented an access-control security application for the database-defined software-defined network (SDN) controller Ravel (ravel-net.org/). Work published in [2]. Code available on GitHub at ravel-net/REU-access-control (Python, PostgreSQL).

Funding & Awards

NSF Graduate Research Fellowship, *US National Science Foundation (NSF)* *2020-2023*

Phi Beta Kappa Honor Society *2019*
Oldest and most prestigious academic honor society in the US

Computational Science Fellowship (Math & Computing), *US Dept of Energy* *2019, declined*

Goldwater Scholarship (Honorable Mention) *2018*

Technical Skills

Strong: *Python • LaTeX • HTML/CSS/Javascript*
Proficient: *Bash • C++ • Rust*

Languages

Native (C2): English, German, Italian
Conversational (A2-B1): French, Spanish
Beginner (A1): American Sign Language (ASL)