# Eysa Lee

## Research Experience

Aug. 2023 - Postdoctoral Research Associate, Data Science Institute, Brown University, Providence, USA.

Present O Advisor: Anna Lysyanskaya

June 2022 - Quantum Computing Summer Associate, Future Lab for Applied Research and Engineering,

Aug. 2022 JPMorgan Chase, NYC, USA.

May 2019 - Research Intern, Visa Research, Palo Alto, USA.

Aug. 2019 O Host: Peter Rindal

June 2018 - Intern in Summer Program in Applied MPC and Implementations, Bar-llan University,

July 2018 Ramat Gan, IL.

#### Education

May 2023 **PhD in Computer Science**, *Khoury College of Computer Sciences*, Northeastern University, Boston, MA.

Advisor: abhi shelat

Thesis Title: Securely Computing Threshold Variants of Signature Schemes (and More!)

May 2017 **Bachelor of Science in Computer Science**, *College of Natural Sciences*, The University of Texas at Austin, Austin, TX.

**Bachelor of Science in Mechanical Engineering**, *Cockrell School of Engineering*, The University of Texas at Austin, Austin, TX.

#### Publications

Unless otherwise noted, authors ordered alphabetically, as is convention in cryptography.

#### Manuscripts

- An Unstoppable Ideal Functionality for Signatures and a Modular Analysis of the Dolev-Strong Broadcast.

Ran Cohen, Jack Doerner, Eysa Lee, Anna Lysyanskaya, Lawrence Roy

Journal Publications

## J1. Multiparty Generation of an RSA Modulus.

Megan Chen, Ran Cohen, Jack Doerner, Yashvanth Kondi, **Eysa Lee**, Schuyler Rosefield, abhi shelat In Journal of Cryptology. Vol. 35(2).

Conference Papers

#### 7. Threshold ECDSA in Three Rounds.

Jack Doerner, Yashvanth Kondi, **Eysa Lee**, abhi shelat In 45th IEEE Symposium on Security and Privacy (S&P, Oakland), 2024.

6. Threshold BBS+ Signatures for Distributed Anonymous Credential Issuance.

Jack Doerner, Yashvanth Kondi, **Eysa Lee**, abhi shelat, LaKyah Tyner In 44th IEEE Symposium on Security and Privacy (S&P, Oakland), 2023.

5. Circuit Amortization Friendly Encodings and their Application to Statistically Secure Multiparty Computation.

Anders Dalskov, Eysa Lee, Eduardo Soria-Vazquez

In International Conference on the Theory and Application of Cryptology and Information Security (ASIACRYPT), 2020.

#### 4. Multiparty Generation of an RSA Modulus.

Megan Chen, Ran Cohen, Jack Doerner, Yashvanth Kondi, **Eysa Lee**, Schuyler Rosefield, abhi shelat In Annual International Cryptology Conference (CRYPTO), 2020.

#### 3. Threshold ECDSA from ECDSA Assumptions: The Multiparty Case.

Jack Doerner, Yashvanth Kondi, Eysa Lee, abhi shelat

In 40th IEEE Symposium on Security and Privacy (S&P, Oakland), 2019.

## 2. Secure Two-Party Threshold ECDSA from ECDSA Assumptions.

Jack Doerner, Yashvanth Kondi, Eysa Lee, abhi shelat

In 29th IEEE Symposium on Security and Privacy (S&P, Oakland), 2018.

#### 1. Signature Schemes with Randomized Verification.

Cody Freitag, Rishab Goyal, Susan Hohenberger, Venkata Koppula, **Eysa Lee**, Tatsuaki Okamoto, Jordan Tran. Brent Waters

In International Conference on Applied Cryptography and Network Security (ACNS), 2017.

#### Presentations

#### **Talks**

#### Threshold BBS+ Signatures for Distributed Anonymous Credential Issuance.

Nordicrypt, Nov. 2023.

SPRING Group Meeting at EPFL, Jan. 2023.

Northeastern University Theory Seminar, Nov. 2022.

Brown University Crypto Reading Group, Nov. 2022.

JP Morgan Crypto Group Meeting, Aug. 2022

## Circuit Amortization Friendly Encodings and their Application to Statistically Secure Multiparty Computation.

Asiacrypt (pre-recorded conference talk), 2020.

#### Secure Two-Party Threshold ECDSA from ECDSA Assumptions.

IEEE Symposium on Security and Privacy, 2018.

Theory and Practice of Multiparty Computation (TPMPC), 2018

#### Other Workshop Contributions

#### Saying NO! to Workplace Surveillance: Lessons from Cybersecurity and Privacy Institute.

Speakers: Lisa Oakley, xenia dragon, Eysa Lee

Re-Imagining Cryptography and Privacy (ReCAP) Workshop, 2024

## crypto\_doodles: cryptography through comics and jokes.

Eysa Lee

Re-Imagining Cryptography and Privacy (ReCAP) Workshop, 2024.

## Service

- 2025 **PC Member**, IEEE European Symposium on Security and Privacy (EuroS&P).
- 2025 **PC Member**, IEEE Symposium on Security and Privacy (S&P).
- 2024 **PC Co-Chair**, *The Conference for Failed Approaches and Insightful Losses in Cryptology (CFAIL)*. IACR CRYPTO Affiliated Workshop
- 2024 **PC Member**, International Conference on Cryptology and Network Security (CANS).
- 2024 External Reviewer, Eurocrypt.
- 2023 External Reviewer, Eurocrypt, ACM CCS.
- 2021 External Reviewer, CRYPTO.
- 2020 External Reviewer, Eurocrypt, IEEE S&P, TCC, CANS, AFT.
- 2019 External Reviewer, Eurocrypt, CRYPTO, TCC, AFT.
- 2018 External Reviewer, CRYPTO.

## Teaching Experience

Fall 2022, Graduate Teaching Assistant, Northeastern University.

Spring 2021, • Fall 2022: Network Fundamentals (CS 4700/5700). Instructor: David Choffnes.

Spring 2020 • Spring 2021: Cryptography (CY 4770). Instructor: Ran Cohen.

o Spring 2020: Cryptography (CY 4770). Instructor: Daniel Wichs.

## Other Activities

Fall 2022 - PhD Student Liaison, NEU Cybersecurity and Privacy Institute Design Committee.

Spring 2023 One of three PhD student liaisons on the design committee for the new lab space

Spring 2019, Organizer, NEU Crypto Reading Group.

Fall 2019,

Spring 2020

Summer 2017 Instructor, Summer Immersion Program, Girls Who Code.

8-week outreach program teaching computer science to 19 rising junior and senior high school women