# Elizabeth (Eli) Margolin

ecmargo@seas.upenn.edu | ecmargo.github.io

## Education

**University of Pennsylvania** *Philadelphia, PA*

PhD Computer and Information Science *August 2021 - present*

- Advisor: Dr. Sebastian Angel
- Research Focus: Applications of zero knowledge proofs, privacy in large scale distributed systems
- Anticipated Graduation: May 2026

**Duke University** *Durham, NC*

MS Economics and Computation *August 2017 - December 2018*

- Advisor: Dr. Charles Becker and Dr. Ashwin Machanavajjhala

**Stanford University** *Stanford, CA*

BA Political Science *September 2013 - June 2017*

- Graduated with Honors in International Security

## Professional Experience

2019-2022 **Security Engineer** , Meta Platforms

- Created and maintained company wide tooling for insider threat detection
- Automated existing tooling to scale alert processing, while reducing false positives
- Minimized the privacy impact of security tooling, in conjunction with legal and policy stakeholders
- Returned as a Contingent Worker in 2023 to provide continued support to the Legal Investigations team

2019 **Research Assistant** , Ashwin Machanavajjhala, Duke University

- Analyzed the impact of differential privacy on the Voting Rights Act for the 2020 U.S. Census, in conjunction with U.S. Census Bureau

## Publications

S.Angel, E.Ioannidis, **E.Margolin**, S.Setty, J.Woods. *Reef: Fast Succinct Non-Interactive Zero-Knowledge Regex Proofs*. USENIX Security 2024, Philadelphia, PA, August 2024

**E. Margolin**, K. Newatia, E. Roth, T. Luo, A. Haeberlen. *Arboretum: A Planner for Large-Scale Federated Analytics with Differential Privacy*. SOSP 2023, Koblenz, Germany, October 2023

C.Becker, P.Devine, H.Dogo, **E.Margolin**. *Marking Territory: Modeling the Spread of Ethnic Conflict in Bosnia and Herzegovina, 1992-1995*. Economic Research Initiatives at Duke (Erid) Working Paper, no. 266

## Presentations

*Reef: Fast Succinct Non-Interactive Zero-Knowledge Regex Proofs*. Presented At: MIT Security Seminar (February 2024).

*Arboretum: A Planner for Large-Scale Federated Analytics with Differential Privacy*. Presented At: SOSP'23 (October 2023), UPenn Distributed Systems Seminar (September 2023).

## Teaching Experience

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|---|---|---|
| Fall 2023 | **Introduction To Networks And Security**, TA | *University of Pennsylvania* |
| Fall 2022 | **Introduction to Computer Science**, Instructor | *South Woods State Prison* |
| Fall 2022 | **Software Systems**, TA | *University of Pennsylvania* |
| Spring 2022 | **Ethical Algorithm Design**, TA | *University of Pennsylvania* |
| Fall 2018 | **Elements of Machine Learning**, TA | *Duke University* |