

# Kevin Liao

[kliao6@illinois.edu](mailto:kliao6@illinois.edu) | [www.kevinliao.me](http://www.kevinliao.me)

## Research Interests

Programming languages (type systems, verification, synthesis), cryptography (provable security, secure computation, side-channels), computer security & privacy (web, distributed systems)

## Education

[M.S. in Computer Science](#), University of Illinois at Urbana-Champaign Aug. 2017 - Present  
Advisor: Andrew Miller

[B.S. in Computer Science with Honors](#), Arizona State University Aug. 2013 - May 2017  
Advisors: Gail-Joon Ahn, Adam Doupé, Ziming Zhao

## Honors & Awards

[National Science Foundation Graduate Research Fellowship](#) Aug. 2017 - Present

[Outstanding Graduate in Computer Science](#), Arizona State University May 2017

[Moeur Award](#), Arizona State University May 2017

## Research Grants

[SaUCy: Modular Testing and Verification for Distributed Cryptography](#) 2018  
Facebook, \$50,000  
PI: Andrew Miller, Co-PI: [Kevin Liao](#)

## Conference Publications

[ILC: A Calculus for Composable, Computational Cryptography](#)  
[Kevin Liao](#), Matthew Hammer, and Andrew Miller  
Proceedings of the Conference on Programming Language Design and Implementation (PLDI), June 2019.

[Behind Closed Doors: Measurement and Analysis of CryptoLocker Ransoms in Bitcoin](#)  
[Kevin Liao](#), Ziming Zhao, Adam Doupé, and Gail-Joon Ahn  
Proceedings of the Symposium on Electronic Crime Research (eCrime), June 2016.

## Workshop Publications

[Incentivizing Blockchain Forks via Whale Transactions](#)  
[Kevin Liao](#) and Jonathan Katz  
Proceedings of the 4th Workshop on Bitcoin and Blockchain Research (BITCOIN), April 2017.

## Books & Chapters

[Ransomware and Cryptocurrency: Partners in Crime](#)  
[Kevin Liao](#), Ziming Zhao, Adam Doupé, and Gail-Joon Ahn  
*Cybercrime Through an Interdisciplinary Lens* ed. by Thomas J. Holt.

## In Submission

[Black-Box Web Vulnerability Analysis Using White-Box Techniques](#)  
[Kevin Liao](#), Connor Nelson, Zackary Crosley, and Adam Doupé

## Professional Experience

[Research Assistant](#), University of Illinois at Urbana-Champaign Aug. 2017 - Present  
Advisor: Andrew Miller

[Research Assistant](#), Arizona State University May 2017 - Aug. 2017  
Advisor: Adam Doupé

[Undergraduate Research Assistant](#), University of Maryland  
Advisor: Jonathan Katz Jun. 2016 - Aug. 2016

[Undergraduate Research Assistant](#), Arizona State University  
Advisors: Gail-Joon Ahn, Adam Doupé, Ziming Zhao Mar. 2015 - May 2017

## Professional Service

Program Committee, IEEE International Conference on Blockchain and Cryptocurrency (ICBC), 2019

## Teaching

[Teaching Assistant](#), University of Illinois at Urbana-Champaign  
CS498: Applied Cryptography Fall 2018

[Undergraduate Teaching Assistant](#), Arizona State University  
CSE220: Programming for Computer Engineering Spring 2017

[Course Designer](#), First Gen Scientists Fall 2016

[Undergraduate Teaching Assistant](#), Arizona State University  
CSE240: Introduction to Programming Languages Fall 2016

[Undergraduate Teaching Assistant](#), Arizona State University  
CSE110: Introduction to Programming Fall 2014

## Advising & Mentoring

Dhruv Bohra, Eunice Zhou Fall 2018

## Talks

[Incentivizing Blockchain Forks via Whale Transactions](#)  
Workshop on Bitcoin and Blockchain Research (Sliema, Malta) Apr. 2017

[Measurement and Analysis of CryptoLocker Ransoms in Bitcoin](#)  
Symposium on Electronic Crime Research (Toronto, CA) Jun. 2016