

Kevin Liao

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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

[A Calculus for Composable, Computational Cryptography](#)
[Kevin Liao](#), Matthew Hammer, and Andrew Miller
Conditionally accepted to PLDI 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 Doupe, 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