Fan Zhang Curriculum vitae

Basic Name: Fan Zhang http://fanzhang.me
Information 2 West Loop Road fanz@cs.cornell.edu

New York, NY 10044

EDUCATION Ph.D. Candidate in Computer Science

August 2014-

Advisor: Prof. Ari Juels Dept. of Computer Science

Cornell University

**B.S. in Electronic Engineering** Aug, 2010 – Jul, 2014

Dept. of Electronic Engineering Tsinghua University, Beijing, China

GPA: 91.1 (out of 100)

RESEARCH AREA Systems security, Applied Cryptography, Trusted Hardware, Blockchain

Working Researcher May, 2017 – Aug, 2017

EXPERIENCE Oasis Labs Berkeley, CA

**Researcher** Jul, 2017 – Aug, 2017 SPR (Security & Privacy Research), Intel Labs Hillsboro, OR

**System developer intern**Jun, 2013 – May, 2014
Intel Opensource Technology Center (01.org)
Beijing, China

• Contributed to the secure NFC payment component in Tizen OS

• Revamped the CVE scanner for Tizen OS

Professional Program Committee

• The 5th Workshop on Bitcoin and Blockchain Research (BITCOIN'18), Financial

Crypto 2018.

ReviewerACM Computing Surveys (2018)

• Nature Sustainability (2018)

HONORS AND IBM PhD Fellowship Award 2018

AWARDS from IBM

Academic Excellence Scholarship 2013

from Tsinghua University, China

National Scholarship 2012

from the Ministry of Education of China

Freshman Scholarship 2010

from Tsinghua University, China

#### INVITED TALKS

### **Paralysis Proof**

<ul> <li>IC3 Retreat, New York City.</li> </ul>	May 10th, 2018
• 5th Bitcoin Workshop, Financial Crypto'18, Curacao.	March 2nd, 2018
REM	

• USENIX Security'17, Vancouver BC, Canada.

August, 2017

#### **Town Crier**

<ul> <li>Silicon Valley Ethereum Meetup, Santa Clara, CA.</li> </ul>	August, 2017
• IC3 Retreat, San Francisco, CA.	March, 2017
CCS'16, Vienna, Austria.	October, 2016
• IC3 Retreat, New York City.	May, 2016

## Software Artifacts

- [1] Town Crier: an Authenticated Data Feed For Smart Contracts http://github.com/bl4ck5un/Town-Crier
- [2] mbedtls-SGX: a SGX-friendly TLS stack (ported from mbedtls) https://github.com/bl4ck5un/mbedtls-SGX

# TEACHING EXPERIENCE

Part-time Teaching Assistant

2015, Fall

CS 5435: Security and Privacy in the Wild

Teaching Assistant 2015, Spring

CS5300: The Architecture of Large-scale Information Systems

Teaching Assistant 2014, Fall

CS4410: Operating Systems

### **PUBLICATIONS**

- [1] R. Cheng, F. Zhang, J. Kos, W. He, N. Hynes, N. Johnson, A. Juels, A. Miller, and D. Song, *Ekiden: A Platform for Confidentiality-Preserving, Trustworthy, and Performant Smart Contract Execution*, arXiv:1804.05141, Apr. 2018.
- [2] F. Zhang, P. Daian, I. Bentov, and A. Juels, *Paralysis proofs: Safe access-structure updates for cryptocurrencies and more*, Cryptology ePrint Archive, Report 2018/096, 2018.
- [3] I. Bentov, Y. Ji, F. Zhang, Y. Li, X. Zhao, L. Breidenbach, P. Daian, and A. Juels, Tesseract: Real-time cryptocurrency exchange using trusted hardware, Cryptology ePrint Archive, Report 2017/1153, 2017.
- [4] E. Cecchetti, F. Zhang, Y. Ji, A. Kosba, A. Juels, and E. Shi, "Solidus: Confidential distributed ledger transactions via pyorm," in *ACM CCS 2017*, 2017.
- [5] F. Zhang, I. Eyal, R. Escriva, A. Juels, and R. van Renesse, "Rem: Resource-efficient mining for blockchains," in *USENIX Security 17*, 2017.
- [6] F. Tramer, F. Zhang, H. Lin, J.-P. Hubaux, A. Juels, and E. Shi, "Sealed-glass proofs: Using transparent enclaves to prove and sell knowledge," in *EuroS&P'17*, 2017.
- [7] F. Zhang, E. Cecchetti, K. Croman, A. Juels, and E. Shi, "Town crier: An authenticated data feed for smart contracts," in *ACM CCS'16*, ser. CCS '16, Vienna, Austria: ACM, 2016, pp. 270–282, ISBN: 978-1-4503-4139-4.

- [8] F. Tramer, F. Zhang, A. Juels, M. Reiter, and T. Ristenpart, "Stealing machine learning models via prediction APIs," in *USENIX Security'16*, Austin, TX: USENIX Association, 2016.
- [9] L. Yang, Y. Cui, F. Zhang, J. P. Pollak, S. Belongie, and D. Estrin, "Plateclick: Bootstrapping food preferences through an adaptive visual interface," in *Proceedings of the 24th ACM International on Conference on Information and Knowledge Management*, ACM, 2015, pp. 183–192.