

Weikeng Chen

Ph.D. candidate in EECS, UC Berkeley

Personal Information

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GITHUB: [@weikengchen](https://github.com/weikengchen)

Education

- 2017- (in-progress, advanced to candidacy)
Doctor of Philosophy in Computer Science, UC Berkeley,
with GPA 4.0 / 4.0, advised by Prof. Raluca Ada Popa.
- 2017-2019 Master of Science in Computer Science, UC Berkeley,
with GPA 4.0 / 4.0.
- 2013-2017 Honor Bachelor in Engineering in Information Security, USTC, China,
with GPA 3.99 / 4.3 (ranked 1 out of \approx 300 students),
with *summa cum laude*, Guomoruo Scholarship,
and National Cybersecurity Scholarship for Undergrads.

Publication

- N-for-1 Auth: N-wise Decentralized Authentication via One Authentication.
Weikeng Chen, Ryan Deng, and Raluca Ada Popa.
Preprint: IACR ePrint 2021/342
- Reducing Participation Costs via Incremental Verification for Ledger Systems.
Weikeng Chen, Alessandro Chiesa, Emma Dauterman, and Nicholas P. Ward.
(The author list is alphabetically ordered.)
Preprint: IACR ePrint 2020/1522
- Cerebro: A Platform for Multi-Party Cryptographic Collaborative Learning.
Wenting Zheng, Ryan Deng, Weikeng Chen, Raluca Ada Popa, Aurojit Panda, and Ion Stoica.
USENIX Security 2021
- Metal: A Metadata-Hiding File-Sharing System.
Weikeng Chen and Raluca Ada Popa.
NDSS 2020
- Combining Data Owner-side and Cloud-side Access Control for Encrypted Cloud Storage.
Kaiping Xue, Weikeng Chen, Wei Li, Jianan Hong, and Peilin Hong.
TIFS 2018
- TAFC: Time and Attribute Factors Combined Access Control for Time-Sensitive Data in Public Cloud.
Jianan Hong, Kaiping Xue, Yingjie Xue, Weikeng Chen, David S. L. Wei, Nenghai Yu, and Peilin Hong.
TSC 2017
- Exploring a Service-Based Normal Behaviour Profiling System for Botnet Detection.
Weikeng Chen, Xiao Luo, and A. Nur Zincir-Heywood.
AnNet 2017

- A Privacy-Preserving and Real-Time Traceable Power Request Scheme for Smart Grid. Qingyou Yang, Jianan Hong, Kaiping Xue, Weikeng Chen, Xiang Zhang, and Hao Yue. **ICC 2017**

Skills

Coding: an extensive use of Rust, C++/C.

Cryptography: familiar with algorithms and their implementations related to MPC and ZKP (e.g., modern OT, modern garbling) and with elliptic curves (e.g., computation-efficient curves like Curve25519/Ristretto, pairing-friendly curves).

Teaching

Spring 2019 Co-head GSI for CS161 Computer Security
Fall 2018 GSI for CS161 Computer Security

Selected Scholarships, Grants, and Awards

GRADUATE Berkeley Graduate Division Conference Travel Grant (2020)
EECS Fellowship Award (2017 - 2018)
(funded through Jim Gray Fellowship and J. K. Zee Fellowship)
UNDERGRADUATE Guomoruo Scholarship (2016, highest award to undergraduates)
National Cybersecurity Scholarship for Undergrads (2016)
National Scholarship (2014)

Talks and Poster Presentations

Detecting Corrupt Data in Secure Collaborative Learning

- RISELab Retreat Summer 2021.

N-for-1 Auth: N-wise Decentralized Authentication via One Authentication

- RISELab Retreat Winter 2021.

Metal: A Metadata-Hiding File-Sharing System

- The 26th Network and Distributed System Security Symposium (NDSS 2020).
- RISELab Open House 2018.
- RISELab Retreat Winter 2019, Summer 2018.

UC Berkeley International GSI Teaching Conference Panelist

- IGSI Teaching Conference Fall 2020, Fall 2019.

Services

External reviewer: SOSP '21, CCS '20, S&P '20, NSDI '20, SOSP '19, NSDI '19, OSDI '18.

GRADUATE Member of the Engineering Library Student Committee (2020)
Graduate Application Student Reviewer (2018)
UNDERGRADUATE President of the Information Security Student Union (2016)
President of the Information Security Club (2015)