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# Research Interest: Applied Cryptography

- Cryptographic protocols
- Provable security
- Blockchain Security

## **Working Experience**

Post-doctoral Fellow, working with Prof. Man Ho Au 2020.12 — now Department of Computer Science, The University of Hong Kong, Hong Kong

#### Education

•	PhD of Computer Science and Technology University of Chinese Academy of Sciences, Beijing, China Advisor: Prof. Jing Xu	2016.09 — 2020.09
•	Joint Master Program Institute of Software, Chinese Academy of Sciences, Beijing, China Advisor: Prof. Jing Xu and Prof. Zhenfeng Zhang	2014.09 — 2016.06
•	Master of Electronic and Communication Engineering University of Science and Technology of China, Hefei, China Advisor: Prof. Dengguo Feng and Prof. Honggang Hu	2013.09 — 2016.06
•	Bachelor of Information Security University of Science and Technology of China, Hefei, China Thesis advisor: Prof. Zhenfeng Zhang	2009.09 — 2013.06

## **Articles**

- 1. <u>Xinyu Li</u>, Jing Xu, Zhenfeng Zhang, Dengguo Feng: On the security of TLS resumption and renegotiation, *China Communications*, 2016, 13(12): 176--188.
- 2. <u>Xinyu Li</u>, Jing Xu, Zhenfeng Zhang, Dengguo Feng, Honggang Hu: Multiple handshakes security of TLS 1.3 candidates, *IEEE Symposium on Security and Privacy (S&P)*, 2016, 486–505. (Acceptance Rate: 13.8%)
- 3. Bingyong Guo, <u>Xinyu Li\*</u>: Multi-valued Byzantine Consensus Scheme with High Transmission Efficiency, *Journal of Cryptologic Research*, 2018, 5(5): 516-528.
- 4. Xinyu Li, Jing Xu, Zhenfeng Zhang: Revisiting the Security of Qian et al.'s Revised Tree- LSHB+

Protocol. Wireless Personal Communications, 2019, 106(2):321-343.

- Xinyu Li, Jing Xu, Zhenfeng Zhang, Xiao Lan, Yuchen Wang: Modular Security Analysis of OAuth 2.0 in the Three-Party Setting. *IEEE European Symposium on Security and Privacy* (EuroS&P), 2020, 276--293. (Acceptance Rate: 14.5%)
- 6. <u>Xinyu Li</u>, Jing Xu, Xiong Fan, Yuchen Wang, Zhenfeng Zhang: Puncturable Signatures and Applications in Proof-of-Stake Blockchain Protocols. *IEEE Transactions on Information Forensics and Security (TIFS)*, 2020, 15:3872--3885.
- 7. <u>Xinyu Li</u>, Jing Xu, Lingyuan Yin, Yuan Lu, Qiang Tang, Zhenfeng Zhang: Escaping from Consensus: Instantly Redactable Blockchain Protocols in Permissionless Setting. *IEEE Transactions on Dependable and Secure Computing (TDSC)*, 2022.
- 8. Lixin Liu, Xinyu Li, Man Ho Au, Zhuoya Fan, Xiaofeng Meng: Metadata Privacy Preservation for Blockchain-Based Healthcare Systems. *International Conference on Database Systems for Advanced Applications (DASFAA)*, 2022, 404–412. (Acceptance Rate: 27.3%)
- Chengru Zhang, Xinyu Li\* (corresponding author), Man Ho Au: ePoSt: Practical and Client-friendly Proof of Storage-Time. *IEEE Transactions on Information Forensics and* Security (TIFS), 2022.
- 10. Xinyu Li, Jing Xu, Man Ho Au, Chengru Zhang: General design of (tag-based) puncturable signature and its application. (Manuscript)

## **Honors and Awards**

"New academic star", InForSec, Tsinghua University, 2016.

### **Patents**

1. A puncturable signature scheme

Jing Xu, Xinyu Li and Zhenfeng Zhang

Patent number: ZL 201910279881.8, CN.

2. Tag based puncturable signature and its application in PoS blockchain protocols

Jing Xu, Xinyu Li, Zhenfeng Zhang and Xinlei Zhai

Patent number: ZL 201910917779.6, CN

### **Academic Service**

- Program Committee Member: International Symposium on Fintech and Blockchain Systems (FBS), 2022
- Conference Review: FC (2017), ACM CCS (2019), ASIACRYPT (2020), ESORICS (2020), ACM ASIACCS (2020,2021,2022), ACNS (2021), CT-RSA (2022)
- Journal Review: TSC (2018), TMC (2019), TDSC (2021), JISAS (2021,2022).