# YINGJIE XUE

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## EDUCATION

**Brown University**                                                                 *2018-2023*
Department of Computer Science
Ph.D. of Computer Science
Thesis: *Enabling Cross-Chain Transactions* Advisor: Maurice Herlihy

**University of Science and Technology of China (USTC)**                             *2015-2018*
Department of Electronic Engineering and Information Science
M.E. in Electronics and Communication Engineering

**University of Science and Technology of China (USTC)**                             *2011-2015*
Department of Electronic Engineering and Information Science
B.E. in Information Security

## TEACHING EXPERIENCE

**Teaching Assistant**, *Blockchains and Cryptocurrencies*, Brown University, USA      *2022.1–2022.5*
**Teaching Assistant**, *Network Security Protocols*, USTC, Hefei, China               *2016.3–2016.6*

## OTHER WORK EXPERIENCE

**Smart Contract Research Intern**, Algorand Inc, Boston, MA, USA                      *2020.5–2020.8*
Supervisor: Jing Chen

## SELECTED PUBLICATIONS

- **Y.Xue**, D. Jin, M. Herlihy. *Fault-tolerant and Expressive Cross-Chain Swaps.* ICDCN'23: In 24th International Conference on Distributed Computing and Networking, pp. 28-37. 2023.
- **Y.Xue**, M. Herlihy. *Cross-chain State Machine Replication.* SSS'22: In International Symposium on Stabilizing, Safety, and Security of Distributed Systems, pp. 51-65. Springer, Cham, 2022.
- D. Engel, **Y.Xue**. *Transferable Cross-Chain Options.* accepted by ACM Advances in Financial Technologies (AFT'22).
- R. Ganguly, **Y. Xue**, A. Jonckheere, P. Ljung, B. Schornstein, B. Bonakdarpour, M. Herlihy. *Distributed Runtime Verification of Metric Temporal Properties for Cross-Chain Protocols.* ICDCS'22: 42nd IEEE International Conference on Distributed Computing Systems. (co-first author)
- **Y. Xue**, and M. Herlihy. *Hedging Against Sore Loser Attacks in Cross-Chain Transactions.* PODC'21: Proceedings of the 2021 ACM Symposium on Principles of Distributed Computing, pp. 155–164, July 2021.
- E. Daniel, M. Herlihy, and **Y. Xue**. *Failure is (literally) an Option: Atomic Commitment vs Optionality in Decentralized Finance.* SSS'21: International Symposium on Stabilization, Safety, and Security of Distributed Systems. Springer, Cham, 2021.
- **Y. Xue**, K. Xue, N. Gai, J. Hong, D. S. L. Wei, P. Hong, *An Attribute-based Controlled Collaborative Access Control Scheme for Public Cloud Storage*, IEEE Transactions on Information Forensics and Security, vol. 14, no. 11, pp. 2927 - 2942, April 2019. (JCR Q1)
- K. Xue, J. Hong, **Y. Xue**, D. S. L. Wei, N. Yu, P. Hong, *CABE: A New Comparable Attribute-Based Encryption Construction with 0-Encoding and 1-Encoding*, IEEE Transactions on Computers, vol. 66, no. 9, pp. 1491 - 1503, September 2017. (JCR Q1)
- K. Xue, S. Li, J. Hong, **Y. Xue**, N. Yu, P. Hong, *Two-Cloud Secure Database for Numeric-Related SQL Range Queries with Privacy Preserving*, IEEE Transactions on Information Forensics and Security, vol. 12, no. 17, pp. 1596-1608, July 2017. (JCR Q1)
- K. Xue, **Y. Xue**, J. Hong, W. Li, H. Yue, D. S. L. Wei, P. Hong, *RAAC: Robust and Auditable Access Control with Multiple Attribute Authorities for Public Cloud Storage*, IEEE Transactions on Information Forensics and Security, vol. 12, no. 4, pp. 953-967, April 2017. (JCR Q1)

- J. Hong, K. Xue, **Y. Xue**, W. Chen, D. S. L. Wei, N. Yu, P. Hong, *TAFC: Time and Attribute Factors Combined Access Control for Time-Sensitive Data in Public Cloud*, IEEE Transactions on Services Computing, vol. 13, no. 1, pp. 158-171, March 2017. (JCR Q1)
- **Y. Xue**, J. Hong, W. Li, K. Xue, P. Hong, *LABAC: A Location-aware Attribute-based Access Control Scheme for Cloud Storage*, Proceedings of the 59th IEEE Global Communications Conference (GLOBECOM), pp. 1-6, 2016.
- W. Li, K. Xue, **Y. Xue**, J. Hong, *TMACS: A Robust and Verifiable Threshold Multi-Authority Access Control System in Public Cloud Storage*, IEEE Transactions on Parallel and Distributed Systems, vol. 27, no. 5, pp. 1484-1496, May 2016. (JCR Q1)

## SERVICE

- Program Committee Member, EAI TRIDENTCOM, 2023
- Program Committee Member, IJTCS-FAW, 2023
- Program Committee Member, IEEE International Conference on Blockchain and Cryptocurrency (ICBC), 2023
- IEEE Transactions on Dependable and Secure Computing (TDSC), 2021
- IEEE/ACM Transactions on Networking (ToN), 2021
- Peer-to-Peer Networking and Applications (PPNA), 2020
- IEEE Transactions on Cloud Computing (TCC), 2020

## ORAL PRESENTATIONS

- *Fault-tolerant and Expressive Cross-Chain Swaps*, 24th International Conference on Distributed Computing and Networking (ICDCN 2023), IIT Kharagpur, India.
- *Cross-chain State Machine Replication*, International Symposium on Stabilizing, Safety, and Security of Distributed Systems (SSS 2022), Clermont-Ferrand, France.
- *Transferable Cross-Chain Options*, The Science of Blockchain (SBC 2022), Stanford University, California, USA.
- *Hedging Against Sore Loser Attacks in Cross-Chain Transactions*, ACM Symposium on Principles of Distributed Computing (PODC 2021), Virtual Event Italy.
- *LABAC: A Location-aware Attribute-based Access Control Scheme for Cloud Storage*, the 59th IEEE Global Communications Conference (GLOBECOM 2016), Washington, DC, USA.