

Ruonan Chen

I am serving as a visiting Ph.D. student at iTrust Lab, Singapore University of Technology and Design, supervised by *Prof. Sudiputa Chattopadhyay* and *Prof. Jianying Zhou*. I'm pursuing my Ph.D. degree in Cyber Science and Technology at School of Cyber Science and Technology, Beihang University, under *Prof. Jianwei Liu* and *Prof. Dawei Li*. I got my Master's degree and bachelor's degree from School of Computer Science, Shaanxi Normal University, under *Prof. Yong Yu*.



PERSONAL INFORMATION

- **Contact:**
Email: chenruonan0816@gmail.com
- **Citizenship:** Shaanxi, China

EDUCATION

- **Visiting Researcher, Cyber Science and Technology** **November, 2023–Present**
Information Systems and Technology and Design
Singapore University of Technology and Design, Singapore
Supervisor: Sudipta Chattopadhyay & Jianying Zhou
- **Ph.D. Candidate, Cyber Science and Technology** **September, 2021–Present**
School of Cyber Science and Technology
Beihang University, Beijing, P. R. China
Supervisor: Professor Jianwei Liu
- **Master of Engineering, Computer Application Technology** **September, 2018–July, 2021**
School of Computer Science
Shaanxi Normal University, Xi'an, P. R. China
Supervisor: Professor Yong Yu
Thesis: Analysis and Constructions of Decentralized Data Storage Schemes
- **Bachelor of Science, Computer Science and Technology** **September, 2014–July, 2018**
School of Computer Science
Shaanxi Normal University, Xi'an, P. R. China
Thesis: Design and Implementation of Cloud Data Auditing Protocol

RESEARCH INTERESTS

- **Blockchain Consensus**
 - Nakamoto Consensus and Asynchronous Consensus Protocols
 - Payment Channel Network
 - Decentralized Data Storage
- **Applied Cryptography**
 - Provable Security for Cryptographic Protocols including Digital Signatures, Encryption, and Blockchain-based Digital Concurrency

PUBLICATIONS

- [1] Dawei Li(Associate Supervisor), **Ruonan Chen**, Qinqun Wan, *et al*, “Intelligent and Fair IoV Charging Service Based on Blockchain With Cross-Area Consensus”, *IEEE Transactions on Intelligent Transportation Systems*(Impact Factor: 9.551, CCF B), 2023, 1-11.
- [2] Dawei Li(Associate Supervisor), **Ruonan Chen**, Di Liu, *et al*, “Blockchain-based authentication for IIoT devices with PUF”, *Journal of Systems Architecture*(Impact Factor: 5.836, CCF B), 2022, 130: 102638.
- [3] Dawei Li(Associate Supervisor), **Ruonan Chen**, Qinqun Wan, *et al*, “Decentralized IoT Resource Monitoring and Scheduling Framework Based on Blockchain”, *IEEE Internet of Things Journal*(Impact Factor: 10.238), 2022, 1-8.
- [4] **Ruonan Chen**, Yannan Li, Yong Yu, Huilin Li, Xiaofeng Chen, Willy Susilo, “Blockchain-based Dynamic Provable Data Possession for Smart Cities”, *IEEE Internet of Things Journal* (Impact Factor: 10.238), 2020, 7(5): 4143-4154.
- [5] Yong Yu, **Ruonan Chen**, Huilin Li, Yannan Li, Aikui Tian, “Towards Data Security in Edge Intelligent IIoT”, *IEEE Network* (Impact Factor: 10.294), 2019, 34(5) : 12-18.
- [6] Yannan Li, Yong Yu, **Ruonan Chen**, Xiaojiang Du, Mohsen Guizani, “IntegrityChain: Provable Data Possession for Decentralized Storage”, *IEEE Journal on Selected Areas in Communications* (Impact Factor: 13.081, CCF A), 2020, 38(6): 1205-1217.
- [7] Yizhong Liu, Nan Jiang, **Ruonan Chen**, Jianwei Liu, “Overview on blockchain off-chain channels”, *Journal of Cryptologic Research*, 2024, 11(1): 45–66, Accepted.
- [8] Shizhong Li, Wei Zhang, **Ruonan Chen**, *et al*, “A Distributed Attribute-Based Proxy Re-Encryption Scheme for Data Sharing in IoT”, *IEEE International Conference on Big Data Security on Cloud*, 2024, 3-25, Accepted.
- [9] Min Xie, Yong Yu, **Ruonan Chen**, *et al*, “Accountable outsourcing data storage atop blockchain”, *Computer Standards & Interfaces* (Impact Factor: 3.1), 2022, 82(2022): 103628-103639.
- [10] Yong Yu, Huilin Li, **Ruonan Chen**, Yanqi Zhao, Haomiao Yang, Xiaojiang Du, “Enabling Secure Intelligent Network with Cloud-Assisted Privacy-Preserving Machine Learning”, *IEEE Network* (Impact Factor: 10.294), 2019, 33(3): 82-87.
- [11] Yong Yu, Yannan Li, Xiaojiang Du, **Ruonan Chen**, Bo Yang, “Content Protection in Named Data Networking: Challenges and Potential Solutions”, *IEEE Communications Magazine* (Impact Factor: 10.892), 2018, 56(11): 82-87.

ACADEMIC SERVICE

- *Security and Communication Networks*, Reviewer
- *Soft Computing*, Reviewer
- *Computer Standards & Interfaces*, Reviewer
- *Journal of Cloud Computing*, Reviewer
- *Journal of Systems Architecture*, Reviewer
- *Cluster Computing*, Reviewer

HONORS and AWARDS

- National Scholarship for Ph.D. students, Ministry of Education of P.R. China, 2023.
- Merit student, Beihang University, 2022.
- The First-Prize of the academic scholarship, Beihang University, 2022.
- National Scholarship for postgraduate students, Ministry of Education of P.R. China, 2021.
- Pacemaker to Excellent Graduate Students, Shaanxi Normal University, 2020.
- The Hailiang Scholarship, Shaanxi Normal University, 2020.
- Excellent Graduate Student, Shaanxi Normal University, 2020.
- Individual Research Scholarship for Graduate Students, Shaanxi Normal University, 2020.
- The First-Class of the Jixue Scholarship for Graduate Students, Shaanxi Normal University, 2019.
- The First-Prize in the National Cryptography Competition, Chinese Association for Cryptologic Research, 2019.
- The Special-Grade of the Jixue Scholarship, Shaanxi Normal University, 2018.
- The Scholarship for Outstanding Graduate Students, Shaanxi Normal University, 2018.
- National Scholarship, Ministry of Education of P.R. China, 2017.

LANGUAGE SKILLS

- **English (Business Level) :** IELTS 6.5;
Fluent (Academic writing and reading); Intermediate (Speaking)
- **Mandarin Chinese :** Native

Declaration

- I hereby declare that the above mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above mentioned.