KUN YAN Ph.D. Student

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EDUCATION

Xidian University Xi'an, China
Ph.D. in Cryptography Aug. 2021 - Jun. 2025
- Research Area: 6G Networks, Evolutionary Algorithm, and Blockchain

Xidian University Xi'an, China
M.E. in Information and Communications Engineering Aug. 2019 - Aug. 2021
- Research Area: Internet of Vehicles and Blockchain

Xi'an University of Technology Xi'an, China
B.E. in Internet of Things Engineering Aug. 2015 - Jun. 2019
- Research Area: Internet of Things and Data Monitoring

RESEARCH INTERESTS

6G Networks: resource sharing, multi-objective optimization, security and privacy.

Blockchain: consensus mechanisms, distributed network management.

Internet of things: resource management, information sharing, distributed security.

PUBLICATIONS

1. **Kun Yan**, Wenping Ma, and Shaohui Sun, "Communications and Networks Resources Sharing in 6G: Challenges, Architecture, and Opportunities," in *IEEE Wireless Communications*, vol. 31, no. 6, pp. 102-109, Dec. 2024. doi: 10.1109/MWC.003.2400038. (IF=10.9)

2. **Kun Yan**, Wenping Ma, Qi Yang, Shaohui Sun, and Weiwei Wang, "Info-Chain: Reputation-Based Blockchain for Secure Information Sharing in 6G Intelligent Transportation Systems," in *IEEE Internet of Things Journal*, vol. 11, no. 5, pp. 9198-9212, Mar. 2024. doi: 10.1109/JIOT.2023.3323011. (IF=10.6)

3. **Kun Yan**, Ping Zeng, Kan Wang, Wenping Ma, Geng Zhao, and Yingjie Ma, "Reputation Consensus-Based Scheme for Information Sharing in Internet of Vehicles," in *IEEE Transactions on Vehicular Technology*, vol. 72, no. 10, pp. 13631-13636, Oct. 2023. doi: 10.1109/TVT.2023.3237215. (IF=6.8)

4. **Kun Yan**, Wenping Ma, Shaohui Sun, and Weiwei Wang, "Blockchain-Based Dynamic Spectrum Sharing for Service-Centric 6G Networks: An Evolutionary Approach," in *IEEE Transactions on Network Science and Engineering*, Under Review.

5. **Kun Yan**, Wenping Ma, and Shaohui Sun, "BECS: A Privacy-Preserving Computing Sharing Mechanism in 6G Computing Power Network," in *IEEE Transactions on Mobile Computing*, Under Review. doi: doi.org/10.48550/arXiv.2412.06196.

PROJECTS

Research on Key Technologies for Mobile Communication Network Security
Datang Mobile Communications Equipment Co., Ltd Nov. 2021 - Oct. 2024
- Security Threats and Requirements in 6G Networks
- Applications of Blockchain in 6G Security
- Applications of Blockchain and Artificial Intelligence in 6G Resource Management

Research on Security Collaborative Defense Technology for Wind Power Internet Intelligent Manufacturing
Shaanxi Provincial Science and the Technology Department Jan. 2022 - Dec. 2024
- Security, Trust, and Privacy Protection of Data in Distributed Networks
- Blockchain-Based Distributed Information Sharing

TEACHING EXPERIENCE

Teaching Assistant in Modern Cryptography
School of Telecommunications Engineering, Xidian University   Jun. 2022
- Introducing the research and application of blockchain

Teaching Assistant in Random Signal Analysis and Applications
School of Telecommunications Engineering, Xidian University   May. 2024
- Introduction to spectrum sharing and management methods based on artificial intelligence, blockchain and other technologies

RESEARCH EXPERIENCE

Supervision of Undergraduate and Master's Theses
School of Telecommunications Engineering, Xidian University   Nov. 2021 - Jun. 2024
- Guiding undergraduate and master's students in blockchain-related research and supervising their thesis work based on this research.

Research Assistant in Exploration of 6G Networks and Blockchain Technology
Datang Mobile Communications Equipment Co., Ltd   Apr. 2023 - Oct. 2024
- Research on distributed service security in 6G networks and blockchain-based network management.

AWARDS AND HONORS

National Scholarship
Ministry of Education of the People's Republic of China   Nov. 2024

Excellent Graduate Student
Xidian University   Nov. 2024

First Prize Academic Scholarship
Xidian University   Oct. 2023

Third Prize of the First National Cryptography Contest
Chinese Association for Cryptologic Research   Aug. 2022

SKILLS

Languages: Chinese, English.
Programming: Golong, C++, MATLAB, Python.

ACADEMIC SERVICES

Reviewers for: *IEEE Transactions on Network Science and Engineering,*
IEEE Transactions on Network and Service Management,
IEEE Internet of Things Journal,
IEEE Communications Letters,
IEEE Consumer Electronics Magazine.

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