Canhui Chen (陈灿辉)

Address: Tsinghua University, Beijing, China

EDUCATION

Master of Science in Computer Science, Tsinghua University (THU)

Institute for Interdisciplinary Information Science (IIIS); Advisor: Zhixaun Fang

Beijing, China Sep. 2021 – Present

B.S. Degree in Software Engineering, Sun Yat-Sen University (SYSU)

Guangzhou, China Sep. 2017 – July. 2021

Email: chen-ch21@mails.tsinghua.edu.cn

School of Computer Science and Engineering (CSE); Ranking: 1/174

Publication

- 1. Canhui Chen and Zhixuan Fang, "We-TIPS: Weak-Block-Based Transaction Inclusion Protocol with Signaling in DAG-based Blockchain," the 21th International Symposium on Modeling and Optimization in Mobile, Ad hoc, and Wireless Networks (WiOpt), August 2023. (Best Paper Candidate)
- 2. **Canhui Chen** and Zhixuan Fang, "Gacha Game Analysis and Design," *Proceedings of ACM SIGMETRICS* (SIGMETRICS), June 2023.
- 3. Canhui Chen and Zhixuan Fang, "Gacha Game Analysis and Design," Proceedings of the ACM on Measurement and Analysis of Computing Systems (POMACS) 7.1 (2023): 1-45. (Accepted directly through ACM SIGMETRICS)
- 4. Canhui Chen*, Zerui Cheng*, Shutong Qu, Zhixuan Fang, "Crowdsourcing Work as Mining: A Decentralized Computation and Storage Paradigm," the 7th Asia-Pacific Workshop on Networking (APNet'23), June 2023, (Poster) (* denotes the equal contributions)
- 5. Canhui Chen, Xu Chen, Zhixuan Fang, "TIPS: Transaction Inclusion Protocol with Signaling in DAG-Based Blockchain," *IEEE Journal on Selected Areas in Communications (JSAC)* 40.12 (2022): 3685-3701.
- 6. Jiayuan Liu*, **Canhui Chen***, Lulu Zhou, Zhixuan Fang, "Real-Time Recursive Routing in Payment Channel Network: A Bidding-based Design," *Proceedings of the 20th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt).* 2022. (* denotes the equal contributions)
- 7. Canhui Chen, Qian Ma, Xu Chen, Jianwei Huang, "User Distributions in Shard-based Blockchain Network: Queueing Modeling, Game Analysis, and Protocol Design," Proceedings of the Twenty-second International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc). 2021.
- 8. Canhui Chen, Xu Chen, Jiangshan Yu, Weigang Wu, Di Wu, "Impact of Temporary Fork on the Evolution of Mining Pools in Blockchain Network: A Modeling Analysis," *IEEE Transactions on Network Science and Engineering (TNSE)*, 2020.
- 9. Jianzhen Xiao*, Canhui Chen*, Yunong Zhang, "Continuous ZND (Zhang Neural Dynamics) Model for Generalized Sinkhorn Scaling of Time-Varying Matrix," *IEEE 11th International Conference on Intelligent Control and Information Processing (ICICIP)*, 2021. (* denotes the equal contributions)
- 10. Canhui Chen, Yihong Ling, Deyang Zhang, Nini Shi, Yunong Zhang, "Noisy Zhang-Dynamics (ZD) Method for Genesio Chaotic (GC) System Synchronization: Elegant Analyses and Unequal-Parameter Extension," *Proceedings of IEEE Symposium Series on Computational Intelligence (SSCI)*, 2019.

Selected Awards

- Li Xuerou Foundation Scholarship, 2020 (the only one in CSE in SYSU)
- China National Scholarship (top 2%), by Ministry of Education of China, 2020
- China National Scholarship (top 2%), by Ministry of Education of China, 2019

Professional Activities

- Technical Reviewer
 - IEEE Journal on Selected Areas in Communications (JSAC)
 - Frontiers of Computer Science (FCS)
 - The 16th International Conference on Wireless Algorithms, Systems, and Applications (WASA 2021)
- Teaching Assistant of Game Theory, Institute for Interdisciplinary Information Sciences (IIIS), Tsinghua