

YUANHANG ZHOU

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✉ RESEARCH INTERESTS

Blockchain: Blockchain Application, Security and Privacy, Applied Cryptography

Crowdsensing: Incentive Mechanism, Optimization, Influence Maximization

🎓 EDUCATION

Southeast University

2021.9 – Present

Pursuing Master's degree Cyberspace Security Advisor: **Fei Tong**

GPA: 3.75/4 (Normalized score: 84.63) Ranking 14 (<4%)

Nanjing University of Posts and Telecommunication (NJUPT)

2017.9 – 2021.6

Bachelor of Engineering Information Security Advisor: **Jia Xu**

GPA: 3.94/5 Ranking 14 (Elite class)

💼 EMPLOYMENT

Southern University of Science and Technology (SUSTech)

2023.6 – Present

Visiting Student Department of Computer Science and Engineering Advisor: **Jianyu Niu**

🏆 HONORS

National Scholarship, *Ministry of Education*

2022

“Huawei Cup” 1st Network Security Innovation Competition, Third Prize

2022

First Class Postgraduate Academic Scholarship, *Southeast University*

2021

Excellent Graduation Thesis, *NJUPT*

2021

📖 RESEARCH ACHIEVEMENTS

Academic Page

Google Scholar

ORCID

Publications

- **Yuanhang Zhou**, Fei Tong, and Shibo He, “Bi-objective Incentive Mechanism for Mobile Crowdsensing with Budget/Cost Constraint,” *IEEE Transactions on Mobile Computing (TMC)*. 2022. **CCF-A**.
- Jia Xu, **Yuanhang Zhou**, Gongyu Chen, et al., “Topic-aware Incentive Mechanism for Task Diffusion in Mobile Crowdsourcing through Social Network,” *ACM Transactions on Internet Technology (TOIT)*. 2022. **CCF-B**.
- Jia Xu, **Yuanhang Zhou**, Yuqing Ding, et al., “Biobjective Robust Incentive Mechanism Design for Mobile Crowdsensing,” *IEEE Internet of Things Journal (IoTJ)*. 2021. **JCR Q1**.
- Jia Xu, Gongyu Chen, **Yuanhang Zhou**, et al., “Incentive Mechanisms for Large-Scale Crowdsourcing Task Diffusion Based on Social Influence,” *IEEE Transactions on Vehicular Technology (TVT)*. 2021. **JCR Q1**.

Unpublished Research

- **Yuanhang Zhou**, Fei Tong, Kaiming Wang, et al., “A Privacy-Preserving Incentive Mechanism for Mobile Crowdsensing based on Blockchain,” *IEEE Transactions on Dependable and Secure Computing (TDSC)*. **Major revision** (Revision submitted). 2023.
- “Towards Efficient, Robust, and Privacy-preserving Incentives for Crowdsensing via Blockchain,” Under research. 2023.
- “BAC-IDS: A Blockchain-Assisted Collaborative Intrusion Detection System for Smart Home IoT,” Under research. 2023.

Patents

- A Privacy-preserving Incentive Mechanism Method for Crowdsensing based on Blockchain, Authorized *First Student Author*
- A Bi-objective Incentive Mechanism Method for Crowdsensing, Authorized *First Student Author*
- A Bi-objective Crowdsensing System and Incentive Method, Authorized *First Student Author*
- An Anomaly User Detection Method for Temporal and Spatial Mobile Crowdsensing, Authorized *Third Author*
- A Topic-aware Task Diffusion Method and Incentive for Crowdsourcing, Authorized *Third Author*

RESEARCH EXPERIENCE

Dynamic Consensus for Intelligent Transportation	<i>SUSTech</i>	2023.6 – Present
- Design and realize transportation decision for intelligent transportation (V2X) - Consider dynamic participation in consensus		
Incentive Analysis in Blockchain Consensus	<i>SUSTech</i>	2023.6 – Present
- Survey the consensus and incentives in blockchain platforms - Analysis the rationality of incentives using game theory		
Incentive Design for Crowdsensing via Blockchain	<i>Southeast University</i>	2021.7 – Present
- Realize a decentralized crowdsensing system based on blockchain - Design secure and privacy-preserving incentive mechanisms under blockchain architecture		
Crowdsourcing Task Diffusion based on Social Network	<i>NJUPT</i>	2020.6 – 2021.6
- Realize the crowdsourcing task diffusion based on social network for influence maximization		
Robust Incentive Mechanism Design for Crowdsensing	<i>NJUPT</i>	2019.4 – 2020.5
- Design robust incentive mechanisms for crowdsensing system		

OTHER EXPERIENCE

Academic Report	<i>Beijing Institute of Technology</i>	2022.11
<i>Long Report, 2nd Distributed Control, Optimization and Security, Zhizhen Academic Forum for Postgraduate</i>		
Project Director	<i>Southeast University</i>	2022.10 – Present
<i>Student Research Training Program and Student Information Security Contest</i>		
Conference Reviewer		2022.8
<i>IEEE/CIC International Conference on Communications in China (ICCC)</i>		
Teaching Assistant	<i>Southeast University</i>	2021.9-2022.2
<i>Principles of Computer Composition</i>		
Short Visit	<i>Tohoku University</i>	2018.8
<i>Learning frontier technology in Computers and Electronics</i>		

OTHER INFO

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