Junqin Huang

Shanghai, China

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RESEARCH INTEREST

His research interests include crowdsensing, cybersecurity, mobile computing, Internet of things, blockchain, etc.

EDUCATION

Shanghai Jiao Tong University (SJTU) — **Shanghai, China**
Ph.D. Candidate in Electronic Information — *April 2020 - present*

Shanghai Jiao Tong University (SJTU) — **Shanghai, China**
Master Candidate in Computer Technology — *September 2018 - January 2020*

University of Electronic Science and Technology of China (UESTC) — **Chengdu, China**
Bachelor of Computer Science and Technology — *September 2014 - June 2018*

PUBLICATIONS

Journal

- **Junqin Huang**, Linghe Kong*, Hong-Ning Dai, Weiping Ding, Long Cheng, Guihai Chen, Xi Jin, Peng Zeng. *"Blockchain Based Mobile Crowd Sensing in Industrial Systems"*. IEEE Transactions on Industrial Informatics, pp. 1-1, 2020.
- **Junqin Huang**, Linghe Kong*, Guihai Chen, Min-You Wu, Xue Liu, Peng Zeng. *"Towards Secure Industrial IoT: Blockchain System with Credit-Based Consensus Mechanism"*. IEEE Transactions on Industrial Informatics, vol. 15, no. 6, pp. 3680-3689, June 2019.

Conference

- **Junqin Huang**, Linghe Kong*, Guihai Chen, Long Cheng, Kaishun Wu, Xue Liu. *"B-IoT: Blockchain Driven Internet of Things with Credit-Based Consensus Mechanism"*. IEEE ICDCS, Dallas, Texas, USA, 2019.
- **Junqin Huang**, Lingkun Kong, Linghe Kong*, Zhen Liu, Zhiqiang Liu and Guihai Chen. *"Blockchain-based Crowd-sensing System"*. IEEE HotICN International Conference, 2018.

Book Chapter

- **Junqin Huang**, Linghe Kong*, Guihai Chen. *"Outlier Discrimination and Correction in Intelligent Transportation Systems"*. Smart Cities Cybersecurity and Privacy, Elsevier, 2019.

ACADEMIC PROJECTS

Map Attacker — *May 2018 – present*

- We observe the fact that navigation apps will collect users' GPS data to calculate the real time traffic status.
- The main idea of this project is to utilize this fact to defraud navigation apps by uploading fake GPS data.

BlockSense: Blockchain + Crowdsensing — *July 2018 - present*

- We combine blockchain and crowdsensing to build a trustworthy decentralized crowdsensing platform, which breaks the traditional centralized triangular architecture.
- We also propose the Proof-of-Data (POD) consensus mechanism, to leverage miners to verifying data quality while without knowing the content of data.

Hidden Camera Detection *September 2019 - present*

- Motivated by more and more hotel candid shots events, we try to detect if there exists any hidden camera through reading EMI signals from the power line, which is inspired by ElectriSense (Ubicomp'10).
- We built a PLI module and used USRP N210 to construct the experiment platform.

AWARDS AND ACHIEVEMENTS

- National Graduate Scholarship in 2019.
- First prize of National Universities and Colleges Blockchain Contest in 2018.
- First prize of National College Student Information Security Contest in 2017.
- Outstanding Undergraduate of UESTC in 2017.