Minmei Wang

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Department of Computer Science & Engineering
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Research Interests

Internet of Things, AI for 5G, network security, SDN, edge computing, data management

Education

09/2017 - 06/2022 **University of California, Santa Cruz**, USA
Ph.D. in Computer Science and Engineering
Chancellor's Dissertation-Year Fellowship, only *one* recipient in the School of Engineering
Advisor: Chen Qian

09/2014 - 06/2017 **Nanjing University**, China
Master in Computer Science and Technology
Advisor: Yihua Huang

09/2010 - 06/2014 **Nanjing University of Posts and Telecommunications**, China
B.E. in Computer Science,
Advisor: Long Hong (Excellent graduation thesis)

Publications

2023

1. **[IoTDI] Minmei Wang**, Shouqian Shi, Xiaoxue Zhang, Song Han, Chen Qian, LOIS: Low-cost Packet Header Protection for IoT Devices, in *Proceedings of ACM/IEEE International Conference on Internet of Things Design and Implementation (IoTDI)*, 2023.
2. **[UbiComp]** Ge Wang, Shouqian Shi, **Minmei Wang**, Chen Qian, Cong Zhao, Han Ding, Wei Xi, Jizhong Zhao, RF-Chain: Decentralized, Credible, and Counterfeit-proof Supply Chain Management with Commodity RFIDs, in *Proceedings of ACM UbiComp*, 2023.

2022

3. **[TOSN]** Cai, Haofan, Ge Wang, Xiaofeng Shi, Junjie Xie, **Minmei Wang**, Chen Qian, and Shigang Chen. When tags 'read'each other: Enabling low-cost and convenient tag mutual identification, in *Proceedings of ACM TOSN*, 2022.

2021

4. **[CCS]** Xiaofeng Shi, Shouqian Shi, **Minmei Wang**, Jonne Kaunisto, Chen Qian, On-device IoT Certificate Revocation Checking with Small Memory and Low Latency, in *Proceedings of ACM Conference on Computer and Communications Security(CCS)*, 2021.
5. **[ToN]** Xiaofeng Shi, Haofan Cai, **Minmei Wang**, Ge Wang, Baiwen Huang, Junjie Xie, and Chen Qian, TagAttention: Mobile Object Tracing without Object Appearance Information by Vision-RFID Fusion, in *Proceedings of IEEE Transactions on Networking (ToN)*, 2021.
6. **[ToN]** Junjie Xie, Chen Qian, Deke Guo, **Minmei Wang**, Ge Wang, Honghui Chen, COIN: An Efficient Indexing Mechanism for Unstructured Data Sharing Systems, in *Proceedings of IEEE Transactions on Networking (ToN)*, 2021.

2020

7. [**ToN**] **Minmei Wang**, Chen Qian, Xin Li and Shouqian Shi, Collaborative Validation of Public-Key Certificates for IoT by Distributed Caching, in *Proceddings of IEEE Transactions on Networking (ToN)*, 2020.
8. [**HotNets**] Chen Qian, Shouqian Shi, Xiaofeng Shi, and **Minmei Wang**, Don't Work on Individual Data Plane Algorithms. Put Them Together! in *Proceedings of ACM Workshop on Hot Topics in Networks (HotNets)*, 2020.

2019

9. [**VLDB**] **Minmei Wang**, Mingxun Zhou, Shouqian Shi, and Chen Qian. Vacuum Filters: More Space-Efficient and Faster Replacement for Bloom and Cuckoo Filters, in *Proceedings of the International Conference on Very Large Data Bases (VLDB)*, 2019.
10. [**INFOCOM**] **Minmei Wang**, Chen Qian, Xin Li and Shouqian Shi, Collaborative Validation of Public-Key Certificates for IoT by Distributed Caching, in *Proceedings of IEEE International Conference on Computer Communications (INFOCOM)*, 2019.
11. [**ToN**] Xin Li, **Minmei Wang**, Huazhe Wang, Ye Yu, and Chen Qian, Towards Secure and Efficient Communication for the Internet of Things, in *Proceedings of IEEE Transactions on Networking (ToN)*, 2019.
12. [**ICNP**] Xiaofeng Shi, **Minmei Wang**, Ge Wang, Baiwen Huang, Haofan Cai, Junjie Xie, and Chen Qian, TagAttention: Mobile Object Tracing without Object Appearance Information by Vision-RFID Fusion, in *Proceedings of IEEE International Conference on Network Protocols (ICNP)*, 2019.
13. [**ICNP**] Shouqian Shi, Chen Qian, and **Minmei Wang**, Re-designing Compact-structure based Forwarding for Programmable Networks, in *Proceedings of IEEE International Conference on Network Protocols (ICNP)*, 2019.
14. [**INFOCOM**] Junjie Xie, Chen Qian, Deke Guo, **Minmei Wang**, Shouqian Shi, and Honghui Chen, Efficient Indexing Mechanism for Unstructured Data Sharing Systems in Edge Computing, in *Proceedings of IEEE International Conference on Computer Communications (INFOCOM)*, 2019.
15. [**IoTDI**] Xin Li, **Minmei Wang**, Shouqian Shi, and Chen Qian, VERID: Towards Verifiable IoT Data Management, in *Proceedings of ACM/IEEE International Conference on Internet of Things Design and Implementation (IoTDI)*, 2019.
16. [**ICNP**] Haofan Cai, Ge Wang, Xiaofeng Shi, Junjie Xie, **Minmei Wang**, and Chen Qian, When Tags 'Read' Each Other: Enabling Low-cost and Convenient Tag Mutual Identification, in *Proceedings of IEEE International Conference on Network Protocols (ICNP)*, 2019.

2018

17. [**Tapia**] Ge Wang, Haofan Cai, **Minmei Wang**, Chen Qian, and Jinsong Han, Poster: Replay-resilient Physical-layer Authentication for Battery-free IoT Devices, in *Proceedings of ACM Richard Tapia Celebration of Diversity in Computing (Tapia)*, 2018.

2016

18. [**ICONIP**] **Minmei Wang**, Bo Zhao, Yihua Huang, PTR: phrase-based topical ranking for automatic keyphrase extraction in scientific publications, in *Proceedings of International Conference on Neural Information Processing (ICONIP)*, 2016.

Honors and Awards

- Chancellor's Dissertation-Year Fellowship (only one recipient in the School of Engineering), UCSC, 2021-2022
- Finalists of UCSC Grad Slam 2019
- Student Travel Award of IEEE INFOCOM, 2019
- Enterprise Individual Award-Excellence Award on the sentiment analysis task for Big Data & Computing Intelligence Contest, China, 2016
- 10th in the 1002 team in 2016 BYTECUP International Machine Learning Competition, China, 2016

Talks & Presentations

1. **LOIS: Low-cost Packet Header Protection for IoT Devices**, on ACM/IEEE IoTDI conference, San Antonio, Texas, USA, 2023.
2. **Efficient Indexing Mechanism for Unstructured Data Sharing Systems in Edge Computing**, on IEEE INFOCOM conference, Paris, France, 2019.
3. **Vacuum Filters: More Space-Efficient and Faster Replacement for Bloom and Cuckoo Filters**, on VLDB conference, virtual, 2020.
4. **Efficient and secure communication for the Internet of Things (IoT)**, UCSC Grad Slam 2019.
5. **Collaborative Validation of Public-Key Certificates for IoT by Distributed Caching**, on IEEE INFOCOM conference, Paris, France, 2019.

Teaching Experience

Instructor, CSE3300: Computer Networks and Data Communication, University of Connecticut, Spring 2023.

Instructor, CSE5095-002: Special Topics in Computer Science and Engineering, University of Connecticut, Fall 2022.

Teaching Assistant, CMPE150: Introduction to Computer Networks, UC Santa Cruz, Winter 2018.

Teaching Assistant, CSE80N: Introduction to Networking and the Internet, UC Santa Cruz, Fall 2019 and Spring 2021.

Teaching Assistant, CSE253: Network Security, UC Santa Cruz, Winter 2020.

Teaching Assistant, CSE250A: Computer Networks, UC Santa Cruz, Fall 2020.

Teaching Assistant, CSE107: Probability and Statistics for Engineers, UC Santa Cruz, Winter 2021.