

CURRICULUM VITAE

Personal Information

Name: **Qian Wang** Date of Birth: Nov, 1995
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Address: Rm 416, Building 1, School of Communication Eng, HDU, Hangzhou, Zhejiang, China

Education

The University of Sydney **Sydney, Australia**
Ph.D. in Information Engineering Oct. 2017 - Aug. 2021
Centre for IoT and Telecommunications, School of Electrical and Information Engineering
Supervisor: Prof. Yonghui Li and Dr. He Chen

The University of Sydney **Sydney, Australia**
Academic Exchange (study abroad program) Aug. 2016 - Jun. 2017

Southeast University **Nanjing, China**
Bachelor of Biomedical Engineering, GPA: 3.77 / 4.00 (89.77/100) Sept. 2013 - Jun. 2016
Advanced Class for Leading Professionals in Engineering in Chien-Shiung Wu College

Work Experience

- Non-tenured Associate Professor, School of Communication Engineering, Hangzhou Dianzi University, Mar. 2024-present
- Postdoctoral Fellow, Department of Information Engineering, The Chinese University of Hong Kong, Dec. 2021 – Feb. 2024
- Research Assistant, Department of Information Engineering, The Chinese University of Hong Kong, May. 2021 – Nov. 2021
- Tutor of COMP5318, School of Computer Science, The University of Sydney, Semester 1, 2019

Research Areas

My current research interests are in the field of **Industrial Internet of Things (IIoT)**, with a particular focus on

- Timely status update (Age of Information)
- Anomaly detection in industrial control networks.

Publication

- **Q. Wang**, H. Chen and Z. Dong, "Optimizing Information Freshness in Uplink Multiuser SIMO Systems: Low-Complexity Scheduling Algorithms," in IEEE Transactions on Communications, doi: 10.1109/TCOMM.2024.3511693.
- **Q. Wang**, H. Chen, Y. Gu, Y. Li and B. Vucetic, "Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under A Collision Constraint," in IEEE Transactions on Wireless Communications, doi: 10.1109/TWC.2020.3019056.
- **Q. Wang**, H. Chen, C. Zhao, Y. Li, P. Popovski and B. Vucetic, "Optimizing Information Freshness via Multiuser Scheduling with Adaptive NOMA/OMA," in IEEE Transactions on Wireless Communications, doi: 10.1109/TWC.2021.3106778.
- **Q. Wang** and H. Chen, "Age of Information in Reservation Multi-Access Networks With Stochastic Arrivals: Analysis and Optimization," in IEEE Transactions on Communications, vol. 71, no. 8, pp.

- 4707-4720, Aug. 2023, doi: 10.1109/TCOMM.2023.3281486.
- Y. Gu, **Q. Wang**, H. Chen, Y. Li and B. Vucetic, "Optimizing Information Freshness in Two-Hop Status Update Systems Under a Resource Constraint," in IEEE Journal on Selected Areas in Communications, vol. 39, no. 5, pp. 1380-1392, May 2021, doi: 10.1109/JSAC.2021.3065060.
 - B. Li, **Q. Wang**, H. Chen, Y. Zhou and Y. Li, "Optimizing Information Freshness for Cooperative IoT Systems With Stochastic Arrivals," in IEEE Internet of Things Journal, vol. 8, no. 19, pp. 14485-14500, 1 Oct.1, 2021, doi: 10.1109/JIOT.2021.3051417.
 - J. Liu, **Q. Wang** and H. Chen, "Optimizing Information Freshness in Uplink Multiuser MIMO Networks with Partial Observations," in IEEE Transactions on Communications, doi: 10.1109/TCOMM.2024.3487799.
 - **Q. Wang**, H. Chen, P. Mohapatra and N. Pappas, "Secure Status Updates under Eavesdropping: Age of Information-based Secrecy Metrics," IEEE INFOCOM 2024 - IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), Vancouver, BC, Canada, 2024, pp. 01-06, doi: 10.1109/INFOCOMWKSHPS61880.2024.10620867.
 - **Q. Wang** and H. Chen, "AoI-Oriented Scheduling in Downlink Multiuser MIMO Systems Under Peak-Power Constraint," 2023 21st International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt). IEEE. 2023: 627-634.
 - Z. Han, **Q. Wang**, and H. Chen, "Fresh-Fi: Enhancing Information Freshness in Commodity WiFi Systems via Customizing Lower Layers, " 2023 21st International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt). IEEE. 2023: 1-8.
 - J. Liu, **Q. Wang**, and H. Chen, "Optimizing Age of Information in Uplink Multiuser MIMO Networks with Partial Observations, " 2023 21st International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt). IEEE. 2023: 135-142.
 - **Q. Wang** and H. Chen, "Age of Information in Reservation Multi-Access Networks with Stochastic Arrivals," 2022 IEEE International Symposium on Information Theory (ISIT), 2022, pp. 2088-2093, doi: 10.1109/ISIT50566.2022.9834345.
 - H. Chen, **Q. Wang**, Z. Dong and N. Zhang, "Multiuser Scheduling for Minimizing Age of Information in Uplink MIMO Systems," 2020 IEEE/CIC International Conference on Communications in China (ICCC), 2020, pp. 1162-1167, doi: 10.1109/ICCC49849.2020.9238859.
 - **Q. Wang**, H. Chen, Y. Li and B. Vucetic, "Minimizing Age of Information via Hybrid NOMA/OMA," 2020 IEEE International Symposium on Information Theory (ISIT), Los Angeles, CA, USA, 2020, pp. 1753-1758, doi: 10.1109/ISIT44484.2020.9174163.
 - **Q. Wang**, H. Chen, Y. Li, Z. Pang and B. Vucetic, "Minimizing Age of Information for Real-Time Monitoring in Resource-Constrained Industrial IoT Networks," 2019 IEEE 17th International Conference on Industrial Informatics (INDIN), Helsinki, Finland, 2019, pp. 1766-1771, doi: 10.1109/INDIN41052.2019.8972306.
 - **Q. Wang**, H. Chen, Y. Li and B. Vucetic, "Recent Advances in Machine Learning-based Anomaly Detection for Industrial Control Networks," 2019 1st International Conference on Industrial Artificial Intelligence (IAI), Shenyang, China, 2019, pp. 1-6, doi: 10.1109/ICIAI.2019.8850828.
 - **Q. Wang**, Y. Hu, and H. Chen, "Multi-channel EEG Classification Based on Fast Convolutional Feature Extraction." In International Symposium on Neural Networks, pp. 533-540. Springer, Cham, 2017.

Awards

- Postgraduate Scholarship in Wireless Engineering at Centre of Excellence in Telecommunication, The University of Sydney, 08/2017
- Honorable Mention, American College Student Mathematical Contest in Modelling, 01/2016
- Lizhi Education Scholarship, Southeast University, 6/2016

- Zhengbao Education Scholarship, Southeast University, 6/2015
- Award of Distinction, 17th Electronic Design Contest, Southeast University, 06/2015

Skills

- **Programming skill:** C++, Python, MATLAB
- **Language:** IELTS: 7.0 (Listening 7.0; Reading 7.5; Writing 6.5; Speaking 6.5)
PTE: 72 (Listening 77; Reading 69; Writing 76; Speaking 70)
Passed the exam commenced by Australia National Accreditation Authority for Translator and Interpreters (NAATI). Native speaker of Chinese
- **Math:** Excellent mathematical knowledge and analytical skills