Yu Zhao

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Education

Mar. 2019 – present	Pursuing the combined master and Ph.D. degree in electronic engineering at Hanyang University.
Sep. 2013 – Jul. 2017	B.S. in Electronic and Information Engineering at Harbin University of Science and Technology.
Sep. 2016 – Jul. 2017	Exchange student at Chonnam National University.

Research interests

1. Reinforcement learning for the wireless networks optimization
2. Reconfigurable Intelligent Surfaces for 6G Cellular Networks
3. Random access for the IoT networks
4. 6G mobile communication
5. Bandit algorithms

Research Experience

1. Lightweight Reinforcement learning for Cross-Layer wireless scheduling for URLLC
   - Design of online structural RL algorithms that efficiently obtain an optimal scheduling policy so that they can guarantee little performance loss and be implemented in real systems.
2. Reinforcement learning-based intelligent device personalization and resource management technology
   - URLLC and low-latency communication is established between the communication system and the user side, which ensures the QoS and improves system performance.
3. AI based distributed channel access for massive IoT
   - Mathematical modeling of multi-user uplink random access systems.

Publications

Journal Articles

1. Lee, D., Zhao, Y., Seo, J.-B., & Lee, J. (2022). Multi-agent reinforcement learning for a random access game. *IEEE Transactions on Vehicular Technology*, *71*(8), 9119–9124.
2. Zhao, Y., Lee, J., & Chen, W. (2021). Q-greedyucb: A new exploration policy to learn resource-efficient scheduling. *China Communications*, *18*(6), 12–23.

Conference Proceedings

1. Lee, D., Zhao, Y., & Lee, J. (2021). Reinforcement learning for random access in multi-cell networks. In *2021 international conference on artificial intelligence in information and communication (icaiic)* (pp. 335–338). IEEE.
2. Zhao, Y., & Lee, J. (2019). A reinforcement learning based low-delay scheduling with adaptive transmission. In *2019 international conference on information and communication technology convergence (ictc)* (pp. 916–919). IEEE.

Honors and Awards

Jun. 2022	**Outstanding Researcher Award**, HYU.
Oct. 2021	**Research Excellence Scholarship for Master and Doctoral Programs**, HYU.
Apr. 2021	**Research Excellence Scholarship for Master and Doctoral Programs**, HYU.
Oct. 2020	**Research Excellence Scholarship for Master and Doctoral Programs**, HYU.

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