



Quyuan Luo

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EDUCATION

Wayne State University

Visiting Scholar (sponsored by China Scholarship Council)
Advisor: Weisong Shi

Detroit, USA

9/2019 - 9/2020

Xidian University

M. Eng and Ph.D. of Communications and Information Systems
Advisor: Changle Li, GPA: 89.9/100

Xi'an, China

9/2015 - 12/2020

Changchun University of Science and Technology

B.S. of Telecommunications Engineering, GPA: Top 5%

Changchun, China

9/2011 - 6/2015

ACADEMIC POSITIONS

- Assistant Professor, *Southwest Jiaotong University*, Chengdu, China, 1/2021 - Present
- Visiting Scholar, *Wayne State University*, Detroit, USA, 9/2019 - 9/2020

RESEARCH INTERESTS

Vehicular Edge Computing, Content Distribution, Resource Allocation, Reinforcement Learning, Computation Offloading, Game Theory

PROJECTS

Principal Investigator.....

1. Resource Allocation for Vehicular Edge Computing Based on Mobility-Awareness and Spatiotemporal Correlation (NSFC, Jan. 2022-Dec. 2024)
2. Task Process-Oriented Resource Allocation for Vehicular Edge Computing (Fundamental Research Funds for the Central Universities, Jan. 2021-Dec. 2022)
3. Design of Pedestrian Detection System for Smart Road (Graduate Innovation Fund of Xidian University, May 2018-May 2019)

Participated Projects.....

1. Integrated Application of Intelligent Cooperative Vehicle-Infrastructure Systems on Highways (National Key Research and Development Project, May 2019-Dec. 2020)
2. Fusion of Artificial Intelligence-aided Communications and Computing for Networked Autonomous Driving (Key Program of National Natural Science Foundation of China, Jan. 2019-Dec. 2020)
3. Network-Controlled Autonomous Driving: Communication Network System for Autonomous Driving (Special Foundation of Xi'an Science and Technology Bureau, May 2018-Dec. 2020)
4. Communication Network System for Autonomous Driving Terminal in Tianlang Dream Town (cooperate with Tianlang Company, Mar. 2018-Sep. 2019)
5. Research, Development and Application of On-Board V2X Products for Vehicular Networks (Key Research and Development Program of Shaanxi, Jan. 2018-Sep. 2019)

6. Research of Key Technologies in Group Communication Based Vehicular Social Networks (Natural Science Foundation of China, Sep. 2016-Sep. 2017)
7. Research of Key Technologies in Group Perception and Information Security in Vehicular Networks (Key Research and Development Program of Shaanxi, Sep. 2015-Sep. 2016)

EXPERIENCE

Connected and Autonomous dRiving Laboratory (CAR Lab)

Visiting Scholar (sponsored by China Scholarship Council)

Detroit, USA

Sep 2019 - Present

PUBLICATION

Journal Papers.....

1. **Quyuan Luo**, Shihong Hu, Changle Li, Guanghui Li, and Weisong Shi, "Resource Scheduling in Edge Computing: A Survey," IEEE Communications Surveys and Tutorials, August 2021, doi : 10.1109/COMST.2021.3106401. (Early Access)
2. **Quyuan Luo**, Changle Li, Tom H. Luan and Weisong Shi, "Self-Learning based Computation Offloading for Internet of Vehicles: Model and Algorithm," IEEE Transactions on Wireless Communications, March 2021, doi:10.1109/TWC.2021.3071248. (Early Access)
3. **Quyuan Luo**, Changle Li, Tom H. Luan and Weisong Shi, "Minimizing the Delay and Cost of Computation Offloading for Vehicular Edge Computing," IEEE Transactions on Services Computing, March 2021, doi:10.1109/TSC.2021.3064579. (Early Access)
4. **Quyuan Luo**, Changle Li, Tom Luan, Weisong Shi, "Collaborative Data Scheduling for Vehicular Edge Computing via Deep Reinforcement Learning," IEEE Internet of Things Journal, vol. 7, no. 10, pp. 9637-9650, 2020.
5. **Quyuan Luo**, Changle Li, Tom Luan, Weisong Shi, "EdgeVCD: Intelligent Algorithm Inspired Content Distribution in Vehicular Edge Computing Network," IEEE Internet of Things Journal, vol. 7, no. 6, pp. 5562-5579, 2020.
6. Yunpeng Wang, **Quyuan Luo**, Changle Li and Guoqiang Mao, "Research and Implementation of Pedestrian Detection Technology Based on Smart Road," Chinese Journal on Internet of Things, vol. 3, no. 3, pp. 84-89, 2019.
7. Changle Li, **Quyuan Luo**, Guoqiang Mao, Min Sheng and Jiandong Li, "Vehicle-Mounted Base Station for Connected and Autonomous Vehicles: Opportunities and Challenges," IEEE Wireless Communications, vol. 26, no. 4, pp. 30-36, August 2019.
8. **Quyuan Luo**, Changle Li, Tom H. Luan and Yingyou Wen, "Optimal Utility of Vehicles in LTE-V Scenario: An Immune Clone Based Spectrum Allocation Approach," IEEE Transactions on Intelligent Transportation Systems, vol. 20, no. 5, pp. 1942-1953, July 2019.
9. **Quyuan Luo**, Xuelian Cai, Tom H. Luan and Qiang Ye, "Fuzzy Logic-Based Integrity-Oriented File Transfer for Highway Vehicular Communications," EURASIP Journal on Wireless Communications and Networking, vol. 2018, no. 1, pp. 1-16, January 2018.

Conference Papers.....

1. Yunpeng Wang, **Quyuan Luo**, and Changle Li, "Research and Implementation of Pedestrian Detection Technology Based on Smart Road," accepted to be appear in Proc. IEEE VTC-Spring, Victoria, 2020.
2. **Quyuan Luo**, Changle Li, Qiang Ye, Tom H. Luan, Lina Zhu and Xiaolei Han, "CFT: A Cluster-based File Transfer Scheme for Highway VANETs," in Proceedings of the IEEE International Conference on Communications (ICC), May 21-25, 2017, Paris, France.
3. Pengfei Huang, Changle Li, **Quyuan Luo**, Yao Zhang and Bing Xia, "GECM: A Novel Green Wave Band Based Energy Consumption Model for Electric Vehicles," in Proceedings of the 87th IEEE Vehicular Technology Conference (VTC Spring), June 3-6, 2018, Porto, Portugal.

4. Zhifang Miao, Xuelian Cai, **Quyuan Luo**, Weiwei Dong, "A FLRBF Scheme for Optimization of Forwarding Broadcast Packets in Vehicular Ad Hoc Networks," in Proceedings of the 27th IEEE Annual International Symposium on Personal, Indoor, and Mobile Radio Communications (**PIMRC**), September 4-8, 2016, Valencia, Spain.

AWARDS AND ACHIEVEMENTS

1. First Class Scholarship in Xidian University, 2018
2. Excellent Postgraduate Student Award in Xidian University, 2018
3. First Class Scholarship in Xidian University, 2017
4. Excellent Postgraduate Student Award in Xidian University, 2017
5. Second Class Scholarship in Xidian University, 2016
6. Second Class Scholarship in Changchun University of Science and Technology, 2015
7. First Class Scholarship in Changchun University of Science and Technology, 2014
8. National Encouragement Scholarship, 2013
9. Second Prize in Contemporary Undergraduate Mathematical Contest in Modeling, 2013
10. First Prize in Mathematical Competition of Changchun University of Science and Technology, 2013
11. First Class Scholarship in Changchun University of Science and Technology, 2013
12. National Encouragement Scholarship, 2012
13. First Class Scholarship in Changchun University of Science and Technology, 2012

PROFESSIONAL SERVICES

Reviewer.....

1. Sensors, 2021
2. IEEE Wireless Communications Magazine, 2020
3. IEEE Transactions on Wireless Communications, 2019, 2020
4. IEEE Internet Computing, 2020
5. IEEE International Conference on Distributed Computing Systems (ICDCS), 2020
6. IEEE Transactions on Vehicular Technology, 2016, 2019
7. Journal of Parallel and Distributed Computing (JPDC), 2019
8. ACM/IEEE Conference on Internet of Things Design and Implementation (IoTDI), 2019
9. IEEE Transactions on Services Computing, 2019
10. IEEE Transactions on Cloud Computing, 2019
11. IEEE Transactions on Intelligent Transportation Systems, 2018
12. IEEE Communications Magazine, 2018
13. IEEE Network Magazine, 2017
14. IEEE Vehicular Technology Conference (VTC), 2017

Professional Participation.....

1. Trackchair, 2021 Symposium on Information, Electronics, and Control Technologies (IECT'2021).

Conference Volunteer.....

1. The Third IEEE International Conference on Connected and Autonomous Driving (**MetroCAD**), 2020.