

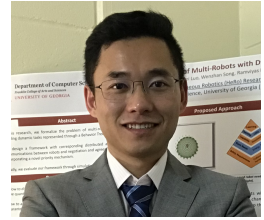
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🏠 <https://rickyang2016.github.io/>

🐙 <https://github.com/RickYang2016>

🎓 https://scholar.google.com/citations?user=t6e_A9kAAAAJ&hl=en



Education Background

- 01/2019 – 05/2022  **Ph.D., University of Georgia** in Computer Science
Specializing in: Distributed Artificial Intelligence (DAI), Swarm Intelligence, Multi-Agent/Robot Systems (MAS), Robotics, and Human-Robot Interaction
Thesis title: Self-Adaptive Swarm System (SASS)
Dissertation:<https://exploro.libs.uga.edu/esploro/outputs/9949451030302959>
- 08/2017 – 12/2018  **M.Sc. Colorado School of Mines** in Computer Science.
Speciality: Multi-Agent Systems (MAS) and Multi-Robot Systems (MRS).
- 09/2008 – 07/2011  **M.Eng. Peking University** in Software Engineering.
- 09/2000 – 07/2004  **B.Eng. Harbin Institute of Technology** in Mechatronics.

Academic Positions and Working Experiences

- 10/2022 – Present  **Research Scientist in Automated Driving Systems**, Automotive Products Research Laboratory, Hitachi America, Ltd.
- 01/2019 – 09/2022  **Research & Teaching Assistant/Instructor**, Computer Science Department, University of Georgia.
- 08/2017 – 12/2018  **Teaching Assistant**, Computer Science Department, Colorado School of Mines.
- 06/2017 – 08/2017  **Assistant Research Engineer**, Robotics and Artificial Intelligence Laboratory, The Chinese University of Hong Kong - Shenzhen.
- 05/2014 – 05/2017  **Senior Engineer & Project Manager**, Intelligent Engineering Department, China Architecture Design & Research Group.
- 06/2010 – 04/2014  **Electrical Engineer & Project Manager**, China Electronics Engineering Design Institute.
- 07/2004 – 05/2010  **Electrical Engineer & Project Manager**, China Aerospace Science and Industry Corporation.

Research Publications

Conference Proceedings






- 1 **Yang, Q.,** & Parasuraman, R. (2022a). A game-theoretic utility network for cooperative multi-agent decisions in adversarial environments. In *Iros22 workshop on decision making in multi-agent systems*. IEEE.
- 2 **Yang, Q.,** & Parasuraman, R. (2022d). Game-theoretic utility tree for multi-robot cooperative pursuit strategy. In *2022 the 54th international symposium on robotics (isr europe)*. IEEE.
- 3 **Yang, Q.,** (2021). Self-adaptive swarm system (sass). In *Proceedings of the thirtieth international joint conference on artificial intelligence, IJCAI-21* (pp. 5040–5041). Doctoral Consortium.
- 4 **Yang, Q.,** & Parasuraman, R. (2021). How can robots trust each other for better cooperation? a relative needs entropy based robot-robot trust assessment model. In *2021 ieee international conference on systems, man, and cybernetics (smc)*. IEEE.
- 5 **Yang, Q.,** & Parasuraman, R. (2020a). Hierarchical needs based self-adaptive framework for cooperative multi-robot system. In *2020 ieee international conference on systems, man, and cybernetics (smc)* (pp. 2991–2998). IEEE.
- 6 **Yang, Q.,** & Parasuraman, R. (2020b). Needs-driven heterogeneous multi-robot cooperation in rescue missions. In *2020 ieee international symposium on safety, security, and rescue robotics (ssrr)* (pp. 252–259). IEEE.
- 7 **Yang, Q.,** Luo, Z., Song, W., & Parasuraman, R. (2019). Self-reactive planning of multi-robots with dynamic task assignments. In *2019 international symposium on multi-robot and multi-agent systems (mrs)* (pp. 89–91). IEEE.

Submitted Papers




- 1 **Yang, Q.,** & Parasuraman, R. (2022b). A hierarchical game-theoretic decision- making for cooperative multi-agent systems under the presence of adversarial agents.
- 2 **Yang, Q.,** & Parasuraman, R. (2022c). Bayesian strategy network based soft actor critic in deep reinforcement learning.

Peer Review Service

Reviewer for the follows:



Journal	 IEEE Robotics and Automation Letters (RA-L)
Conference	 The 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2020)  The 3rd IEEE International Symposium on Multi-Robot and Multi-Agent Systems (MRS 2021)  The 2021/2022 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2021/2022)  The 2023 IEEE International Conference on Robotics and Automation (ICRA) (ICRA 2023)

Skills

- Languages  Strong reading, writing and speaking competencies for English and Mandarin Chinese.
- Coding  Python, C#, C++, C, SQL, XML/XSL, MatLab, ROS, L^AT_EX.
- Misc.  Academic research, Teaching, Hiking, Traveling, Reading, Cooking, Watching Movies, Classic & Jazz Lover, Exploring, Thinking and Dreaming.

Miscellaneous Experience

Certification

- 2015  **Certified Senior Engineer** in Electric Automatic Control System. Awarded by China Architecture Design Institute.
- 2009  **Certified Engineer**. Awarded by China Aerospace Architectural Design Research Institute.