

Yaqi Xie

EMAIL: yaqixie@comp.nus.edu.sg

PHONE: +65 86538496

RESEARCH INTEREST

Thesis Title: Enhancing Deep Learning with Symbolic Domain Knowledge

Keywords: Knowledge Representation, Graph Neural Network, Inverse Reinforcement Learning, Robotics, Human Robot Interaction, Computer Vision

EDUCATION

National University of Singapore (NUS)

Ph.D. Candidate in Computer Science

Aug. 2017 - Present

Advisor: [Dr. Harold SOH](#)

- GPA: 4.92/5
- Research Achievement Award winner

Singapore University of Technology and Design (SUTD)

Bachelor of Engineering in Engineering Systems and Design

Summa cum laude (highest distinction)

May. 2014 - Aug. 2017

Advisor: [Dr. Wei LU](#)

- GPA: 4.92/5
- Focus track: Business (Data) Analysis
- Class rank: Top 2 in the major, Top 1 in the focus track

Massachusetts Institute of Technology (MIT)

Visiting Student

Dec. 2016 - Jan. 2017

PUBLICATIONS

CONFERENCE

4. [ICRA'21] Xie Yaqi, Zhou Fan, and Harold Soh. "Embedding Symbolic Temporal Knowledge into Deep Sequential Models." *International Conference on Robotics and Automation (ICRA)*, 2021. [\[pdf\]](#)
3. [NeurIPS'19] Xie Yaqi, Xu Ziwei, Kuldeep S. Meel, Mohan S. Kankanhalli, and Harold Soh. "Embedding Symbolic Knowledge into Deep Networks." *Neural Information Processing Systems (NeurIPS)*, 2019. [\[pdf\]](#)
2. [HRI'19] Xie Yaqi, Indu Prasad, Desmond Ong, David Hsu and Harold Soh. "Robot Capability and Intention in Trust-based Decisions across Tasks." *ACM/IEEE Conference on Human Robot Interaction (HRI)*, 2019. [\[pdf\]](#)

JOURNAL

1. [IJRR'19] Harold Soh, Yaqi Xie, Min Chen, and David Hsu. "Multi-Task Trust Transfer for Human Robot Interaction." *International Journal of Robotics Research (IJRR)*, 2019. [\[pdf\]](#)

HONORS AND AWARDS

- NUS School of Computing, Research Achievement Award, 2020
- 2nd Price at IEEE NTU hackathon at iNTUition, 2017
- Keppel Award of Excellence, 2017
- Teralytics Business Analytics Award, 2017
- Winner of IES Gold Medal, 2017

- SUTD Honors List, *2014-2017*

INDUSTRIAL EXPERIENCES

J.P. Morgan

May. 2016 - Jul. 2016

Technology Intern

- Developed a web application to track server order and build process and calculate expected delivery time with a team of 4 using bootstrap, JavaScript, Spring MVC, Rest service and Hibernate.

Citibank

May. 2015 - Jul. 2015

Operations Intern

- Developed and tested Excel VBA Macros to reformat messages to automatically generate reports, and liaised with internal stakeholders to improve SWIFT messages process workflow.

ACADEMIC SERVICES

- NUS [Computing Research Week August 2020](#) Chair
- NUS [Computing Research Week August 2021](#) Chair
- AMMAS 2020 Conference sub-reviewer
- AAAI 2019 Conference Reviewer
- Teaching Assistant for CS5340 Uncertainty Modeling in Artificial Intelligence, *Semester 1, 2 Year 18/19; Semester 1 Year 19/20*
- Teaching Assistant for CS5242 Neural Network and Deep Learning, *Semester 2 Year 17/18*