

Sheng Li

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Citizenship: China

Research interests Multi-agent Reinforcement Learning, Reinforcement Learning, Machine Learning, Deep Learning, Artificial Intelligence

Education

Stanford University Stanford, CA
PhD in Aero & Astro Engineering May 2019 – Present
Mentors: Professors Kochenderfer, Mykel J. *GPA: 3.97.*

Stanford University Stanford, CA
MS in Aero & Astro Engineering Sep 2017 – Jun 2019
Mentors: Professors Kochenderfer, Mykel J. *GPA: 3.92.*

University of Michigan Ann Arbor, MI
BSE in Aerospace Engineering Sep 2015 – Apr 2017
GPA: 3.86.

Shanghai Jiao Tong University Shanghai, China
BSE in Mechanical Engineering Sep 2013 – Aug 2017
GPA: 3.75.

Honors and scholarships

Jackson and Muriel Lum Scholarship (University of Michigan) 2015-2017
Excellent Academic Scholarship (Shanghai Jiao Tong University) 2014

Publications

Deep implicit coordination graphs for multi-agent reinforcement learning
S. Li, J. K. Gupta, P. Morales, R. Allen, and M. J. Kochenderfer.
International Conference on Autonomous Agents and Multiagent Systems (AA-MAS), 2021.

Towards a distributed framework for multi-agent reinforcement learning research
Y. Zhou, S. Manuel, P. Morales, S. Li, J. Pena, R. Allen.
IEEE High Performance Extreme Computing (HPEC), 2020.

Analysis of fleet management and infrastructure constraints in on-demand urban air mobility operations
S. Li, M. Egorov, and M. J. Kochenderfer.
AIAA AVIATION, 2020.

Optimizing collision avoidance in dense airspace using deep reinforcement learning

S. Li, M. Egorov, and M. J. Kochenderfer.

Air Traffic Management Research and Development Seminar, 2019.

Research experience

Stanford Intelligent Systems Laboratory (SISL)

Mentors: Professor Mykel Kochenderfer

Jul 2018 – Present

· Multi-agent reinforcement learning research sponsored by MIT Lincoln Lab. Exploring multi-agent cooperation and coordination. Studying cross-agent communication. Incorporating humans with AI.

· Urban air mobility (UAM) research sponsored by Airbus. Solving air collision avoidance using dynamic programming and deep reinforcement learning. Developing and analyzing UAM infrastructure and traffic management.

Spacecraft Relative Motion Lab

Mentors: Professor Ilya Kolmanovsky (U. of Michigan) Feb 2016 – Dec 2016

Studying model predictive control (MPC), optimal and receding horizon drift counteraction control. Implementing estimator and improve MPC controller. Implementing control algorithm to emulate spacecraft motion with Omni-directional robots

Industry experience

SAIC Volkswagen Koito Automotive Lamp Division

Shanghai, China

Capstone internship

Summer 2017

Designing and manufacturing a sensor for measuring the force distribution of the step motor in an auto-leveling vehicle headlight.

Skills

Programming

Proficient in: Python, Julia, Matlab.

Familiar with: C++.

Languages

English (advanced), Mandarin (native)

Other interests

[Photography.](#)