Jiaoyang Li

Curriculum Vitae

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Education

2017-Present **Ph.D. in Computer Science**, *University of Southern California (USC)*, Los Angeles, California, United States.
Advisor: Sven Koenig.

2013-2017 **B.Eng. in Automation**, *Tsinghua University (THU)*, Beijing, China.
GPA: 91/100; Rank: 5/118.

Research Interests

I am interested in many topics related to Artificial Intelligence, such as combinatorial algorithms, heuristic search, scheduling and planning for robotics and transportation.

Publications

2019 [11] J. Wang, **J. Li**, H. Ma, S. Koenig and T. K. S. Kumar. **A New Constraint Satisfaction Perspective on Multi-Agent Path Finding** (extended abstract). In *Proceedings of the International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, (in print), 2019. Accepted rate: 52.1%.

[10] M. Liu, H. Ma, **J. Li** and S. Koenig. **Task and Path Planning for Multi-Agent Pickup and Delivery**. In *Proceedings of the International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, (in print), 2019. Accepted rate: 24.2%.

[9] **J. Li**, P. Surynek, A. Felner, H. Ma, T. K. S. Kumar and S. Koenig. **Multi-Agent Path Finding for Large Agents**. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, (in print), 2019. Accepted rate: 16.2%.

[8] **J. Li**, D. Harabor, P. Stuckey, H. Ma and S. Koenig. **Symmetry Breaking Constraints for Grid-Based Multi-Agent Path Finding**. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, (in print), 2019. Accepted rate: 16.2%.

[7] H. Ma, D. Harabor, P. Stuckey, **J. Li** and S. Koenig. **Searching with Consistent Prioritization for Multi-Agent Path Finding**. In *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, (in print), 2019. Accepted rate: 16.2%.

2018 [6] A. Felner, **J. Li**, E. Boyarski, H. Ma, L. Cohen, T. K. S. Kumar and S. Koenig. **Adding Heuristics to Conflict-Based Search for Multi-Agent Path Finding** (short paper). In *Proceedings of the International Conference on Automated Planning and Scheduling (ICAPS)*, pages 83-87, 2018. Accepted rate: 33.0%.

[5] H. Ma, G. Wagner, A. Felner, **J. Li**, T. K. S. Kumar and S. Koenig. **Multi-Agent Path Finding with Deadlines**. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pages 417-423, 2018. Accepted rate: 20.5%.

[4] H. Ma, G. Wagner, A. Felner, **J. Li**, T. K. S. Kumar and S. Koenig. **Multi-Agent Path Finding with Deadlines: Preliminary Results** (extended abstract). In *Proceedings of the International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 2004-2006, 2018. Accepted rate: 47.4%.

2017 [3] H. Ma, **J. Li**, T. K. S. Kumar and S. Koenig. **Lifelong Multi-Agent Path Finding for Online Pickup and Delivery Tasks**. In *Proceedings of the International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, pages 837-845, 2017. Accepted rate: 26.1%.

[2] Y. Jia, H. Chen, **J. Li**, F. He, M. Li, Z. Hu, and Z. Shen. **Planning for Electric Taxi Charging System from the Perspective of Transport Energy Supply Chain: A Data-Driven Approach in Beijing**. In *Proceedings of IEEE Transportation Electrification Conference & EXPO Asia-Pacific (ITEC-AP)*, pages 1-6, 2017.

[1] **J. Li**, J. Hu and Y. Zhang. **Optimal Combinations and Variable Departure Intervals for Micro Bus System**. *Tsinghua Science and Technology (TST)*, 22(3):282-292, 2017.

Honors and Awards

Fellowships and Scholarships

2017 Viterbi/Graduate School Fellowship, *University of Southern California*.

2017 Excellent Graduate Award of Beijing, *Beijing Municipal Education Commission*.

2016 Fellowship of USC-Tsinghua Summer Research Program, *Tsinghua and University of Southern California*.
Undergraduate research program, 3 students in Department of Automation, Tsinghua are selected annually.

2016 Top Open Program Summer Research Funding, *Tsinghua*.

2016 Tsinghua-AVIC Scholarship, *Tsinghua*.

2015 Fellowship of Spark Talents Program, *Tsinghua*, (50/3500).
Awarded to the top 50 Tsinghua students, dedicated to scientific and technological innovations.

2015 "12.9" Scholarship, *Tsinghua*.

2015 Weimin Zheng Scholarship, *Tsinghua*.

2014 Tsinghua-Evergrande Scholarship, *Tsinghua*.

Competition Awards

2016 Honorable Mention of Interdisciplinary Contest in Modeling.

2015 3rd Price in the 26th Beijing College Students Math Competition.

2014 3rd Price in the 31th Chinese National College Physics Competition.

2013 Silver Medal of the 28th Chinese National Mathematical Olympic Competition.

2013 Silver Medal of the 26th Chinese National Chemistry Contest.

Activities

Conference and Workshop Reviewing

2019 The International Conference on Automated Planning and Scheduling (ICAPS)

2019 The International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS)

2018, 2019 AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES)

2018 The AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE)

2018 ACM Siggraph Conference on Motion, Interaction and Games (MIG)

2018 The International Symposium on Combinatorial Search (SoCS)

2018 IEEE Conference on Computational Intelligence and Games (CIG)

2018 ICAPS Workshop on Planning and Robotics (PlanRob)

Journal Reviewing

2017 Tsinghua Science and Technology (TST)

Student Mentoring

Summer 2018 Minghua Liu (Undergraduate Student in Computer Science at Tsinghua University), *USC-Tsinghua Summer Research Program*.

Professional Skills

Programming Languages: Proficient in C/C++, Python and MATLAB. Familiar with C#, Java, R, VHDL and Verilog.

Proficient in English. Native in Mandarin Chinese.