Lifeng Zhou

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EDUCATION

Virginia Tech, Blacksburg, USA *August 2016 - Expected in December 2019*
Ph.D. in Electrical & Computer Engineering
Advisor: Pratap Tokekar

Shanghai Jiao Tong University, Shanghai, China *March 2016*
M.S. in Control Science & Engineering
Advisor: Shaoyuan Li

Huazhong University of Science & Technology, Wuhan, China *June 2013*
B.S. in Automation

EMPLOYMENT

Visiting Scholar *September 2019 - Present*
Dept. of Computer Science, University of Maryland, College Park, USA
Host: Pratap Tokekar

Research Assistant *August 2016 - Present*
Dept. of Electrical & Computer Engineering, Virginia Tech, Blacksburg, USA
Advisor: Pratap Tokekar

Research Assistant *September 2013 - March 2016*
Key Laboratory of Distributed System Optimization, Shanghai, China
Advisor: Shaoyuan Li

Industry Internship *January 2015 - March 2015*
GE China Power Conversion, Shanghai, China
Group Leader: Polly Xu

Research Assistant *July 2012 - September 2012*
Key Laboratory of Industrial Automation, Wuhan, China
Advisor: Anwen Shen

JOB TALK & OFFER

Teaching Talk: Risk-Aware Decision Making
Research Talk: Resilient and Risk-Aware Multi-Robot Coordination
Offer: **Tenure-Track Assistant Professor**
- College of Control Science and Engineering, Zhejiang University, Hangzhou, China *July 2019*

TEACHING

Guest Lecturer
Resilient and Risk-Aware Submodular Maximization
CMSC 818B: Decision-Making for Robotics
Dept. of Computer Science, University of Maryland, College Park, USA *September 2019*

Teaching Assistant
ECE 4405: Control Systems
Dept. of Electrical & Computer Engineering, Virginia Tech, Blacksburg, USA *Fall 2016*

PUBLICATIONS

Journal Articles

In Preparation

[*J*9] **L. Zhou** and P. Tokekar, Risk-Aware Submodular Maximization in Multi-Robot Teams, *IEEE Transactions on Robotics (T-RO)*, Note: in preparation.

Under Review

[*J*8] **L. Zhou**, V. Tzoumas, G. J. Pappas and P. Tokekar, Distributed Attack-Robust Submodular Maximization for Multi-Robot Planning, *IEEE Robotics and Automation Letters* and *IEEE International Conference on Robotics and Automation (RA-L & ICRA)*, 2020, Note: under review.

[*J*7] Z. Zhang, **L. Zhou** and P. Tokekar, Strategies to Inject Spoofed Measurement Data, *IEEE Transactions on Automatic Control*, Note: revision under review.

Published

[*J*6] **L. Zhou**, and P. Tokekar, Sensor Assignment Algorithms to Improve Observability while Tracking Targets, *IEEE Transactions on Robotics (T-RO)*, 2019.

[*J*5] **L. Zhou**, V. Tzoumas, G. J. Pappas and P. Tokekar, Resilient Active Target Tracking with Multiple Robots, *IEEE Robotics and Automation Letters*, 4(1): pp. 129-136, 2018, and *IEEE International Conference on Robotics and Automation*, 2019.

[*J*4] **L. Zhou**, and P. Tokekar, Active Target Tracking with Self-Triggered Communications in Multi-Robot Teams, *IEEE Transactions on Automation Science and Engineering (T-ASE)*, 2018.

[*J*3] **L. Zhou**, and S. Li, Distributed model predictive control for multiagent flocking via neighbor screening optimization, *International Journal of Robust and Nonlinear Control*, 27(9): pp. 1690-705, 2017.

[*J*2] **L. Zhou**, and S. Li, Distributed model predictive control for consensus of sampled-data multi-agent systems with double-integrator dynamics, *IET Control Theory & Applications*, 9(12): pp. 1774-80, 2015.

[*J*1] L. Peng, A. Shen, N. Zhang, **L. Zhou**, Application of Industrial Embedded System Upgrade Technology Based on Wireless IAP, *Instrument Technique & Sensor*, No. 12, 2013.

Refereed Conference Publications

In Preparation

[*C*8] M. Toubeh*, **L. Zhou*** and P. Tokekar, Risk-Aware Path Planning and Assignment with Uncertainty Extraction from Deep Learning, *International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*, 2020, Note: in preparation.

Under Review

[$C7$] R. K. Ramachandran, **L. Zhou**, and G. S. Sukhatme, Resilient Coverage: Exploring the Local-to-Global Trade-off, *American Control Conference (ACC)*, 2020, Note: under review.

Published

[$C6$] **L. Zhou**, and P. Tokekar, An Approximation Algorithm for Distributed Resilient Submodular Maximization, *The 2nd International Symposium on Multi-Robot and Multi-Agent Systems (MRS), 2019*, Note: in print as extended abstract.

[$C5$] Z. Zhang, J.Lee, JM Smereka, Y. Sung, **L. Zhou** and P. Tokekar, Minimizing detectability and maximizing visibility, *IEEE International Conference on Robotics and Automation (ICRA)*, 2019.

[$C4$] **L. Zhou**, and P. Tokekar, An Approximation Algorithm for Risk-Averse Submodular Optimization, *Workshop on the Algorithmic Foundations of Robotics (WAFR)*, 2018.

[$C3$] Z. Zhang, **L. Zhou**, and P. Tokekar, Strategies to Design Signals to Spoof Kalman Filter, *American Control Conference (ACC)*, 2018.

[$C2$] **L. Zhou**, and P. Tokekar, Active Target Tracking with Self-Triggered Communications, *IEEE International Conference on Robotics and Automation (ICRA)*, 2017.

[$C1$] **L. Zhou**, and S. Li, Cooperative control of linear systems with coupled constraints via distributed model predictive control, *IEEE Chinese Control Conference (CCC)*, 2015.

Refereed Workshop Publications

[$W3$] M. Toubeh*, **L. Zhou*** and P. Tokekar, Risk-Aware Path Planning and Assignment with Uncertainty Extraction from Deep Learning, *Northeast Robotics Colloquium (NERC)*, 2019, Note: under review.

[$W2$] **L. Zhou** and P. Tokekar, An Approximation Algorithm for Distributed Resilient Submodular Maximization, *IEEE International Conference on Robotics and Automation (ICRA) Workshop on Resilient Robot Teams: Composing, Acting, and Learning*, 2019.

[$W1$] **L. Zhou** and P. Tokekar, A Lower Bound on Observability for Target Tracking with Range Sensors and its Application to Sensor Assignment, *IEEE International Conference on Robotics and Automation (ICRA) Workshop on Multi-robot Perception-driven Control and Planning*, 2017.

SERVICE

Reviewer

- *Journals*: IEEE Transactions on Robotics (T-RO), IEEE Transactions on Automation Science and Engineering (T-ASE), IEEE Robotics and Automation Letters (RA-L), Journal of Field Robotics(JFR), Robotics and Autonomous Systems (RAS), IEEE Transactions on Cybernetics, Journal of The Franklin Institute.
- *Conferences*: IEEE International Conference on Robotics and Automation (ICRA), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Workshop on the Algorithmic Foundations of Robotics (WAFR), American Control Conference (ACC).

HONORS

Awards

- RAS Travel Grants: ICRA, MRS *2017-2019*

Graduate Fellowship

- Research Assistant Scholarships, Virginia Tech, Blacksburg, USA *Fall 2016–Present*

- National Scholarship of China (1/121), Shanghai Jiao Tong University, Shanghai, China *2015*

Undergraduate Fellowship

- National Endeavor Fellowship of China (3%), Huazhong Univ. of Sci. & Tech., Wuhan, China *2010*

References Available Upon Request

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