

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

[J9] **L. Zhou** and P. Tokekar, Risk-Aware Submodular Maximization in Multi-Robot Teams, *IEEE Transactions on Robotics (T-RO)*, Note: in preparation.

Under Review

[J8] **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.

[J7] Z. Zhang, **L. Zhou** and P. Tokekar, Strategies to Inject Spoofed Measurement Data, *IEEE Transactions on Automatic Control*, Note: revision under review.

Published

[J6] **L. Zhou**, and P. Tokekar, Sensor Assignment Algorithms to Improve Observability while Tracking Targets, *IEEE Transactions on Robotics (T-RO)*, 2019.

[J5] **L. Zhou**, V. Tzoumas, G. J. Pappas and P. Tokekar, Resilient Active Target Tracking with Multiple Robots, *IEEE Robotics and Automation Letters* and *IEEE International Conference on Robotics and Automation (RA-L & ICRA)*, 2019.

[J4] **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.

[J3] **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.

[J2] **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.

[J1] 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

[C8] 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: Published 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

Last updated: September 27, 2019