Jing Dong

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SUMMARY My current research interest includes various topics in Robotics and Computer Vision, which cover but are not limited to Simultaneous Localization and Mapping (SLAM), 3D reconstruction, and motion planning.

SKILLS Programming: C++(Preferred, 4 years), C(8 years), MATLAB(8 years), CUDA(2 years), Python(1 year)
Robotics Software: ROS(4 years), GTSAM(4 years), OpenCV(6 years)

EDUCATION **Georgia Institute of Technology**, Atlanta, GA Aug 2013 - Aug 2018 (Expected)
Ph.D., Computer Science, GPA: 3.88/4.0
- Advisor: Prof. Frank Dellaert, & Prof. Byron Boots,

Tsinghua University, Beijing, China Aug 2008 - July 2012
B.E., Engineering Mechanics and Aerospace Engineering, GPA: 91.8/100.0, Rank 3/84

RESEARCH EXPERIENCE **Research Intern** May 2017 - Present
Microsoft Corporation, Redmond, WA
Supervisor: Dr. Ranveer Chandra & Dr. Sudipta Sinha
- Project: Time-series 3D reconstructions for data-driven precision agriculture.

Graduate Research Assistant Aug 2013 - Present
Institute for Robotics & Intelligent Machines, Georgia Institute of Technology, Atlanta, GA
Supervisor: Prof. Frank Dellaert & Prof. Byron Boots
- Project: Time-series 3D reconstruction/crop analysis using computer vision in precision agriculture.
- Project: Real-time motion planning as a probabilistic inference framework on high DOF systems.
- Project: Real-time distributed 2D laser mapping on multi quadrotors.

Intern Robotics May 2015 - Aug 2015
iRobot Corporation, Bedford, MA
Supervisor: Dr. Scott Lenser
- Project: Computer vision based 3D mapping and localization.

Visiting Student May 2014 - Aug 2014
Robotics Institute, Carnegie Mellon University, Pittsburgh, PA
Supervisor: Prof. Nathan Michael
- Project: Built a multi quadrotors system for distributed and cooperative mapping.

PUBLICATION
1. M. Mukadam, **J. Dong**, F. Dellaert, B, Boots, Simultaneous Trajectory Estimation and Planning via Probabilistic Inference. In *Robotics: Science and Systems (RSS)*, 2017.
2. **J. Dong**, J. Burnham, B, Boots, G. Rains, F. Dellaert, 4D Crop Monitoring: Spatio-Temporal Reconstruction for Agriculture. In *IEEE International Conference on Robotics and Automation (ICRA)*, 2017.
3. **J. Dong**, M. Mukadam, F. Dellaert, B, Boots, Motion Planning as Probabilistic Inference using Gaussian Processes and Factor Graphs. In *Robotics: Science and Systems (RSS)*, 2016.
4. V. Indelman, E. Nelson, **J. Dong**, N. Michael, F. Dellaert, Incremental Distributed Inference from Arbitrary Poses and Unknown Data Association: Using Collaborating Robots to Establish a Common Reference. In *IEEE Control Systems*, 2016.
5. **J. Dong**, E. Nelson, V. Indelman, N. Michael, F. Dellaert, Distributed Real-time Cooperative Localization and Mapping using an Uncertainty-Aware Expectation Maximization Approach. In *IEEE International Conference on Robotics and Automation (ICRA)*, 2015.
6. L. Carlone, **J. Dong**, S. Fenu, G. Rains, F. Dellaert, Towards 4D Crop Analysis in Precision Agriculture: Estimating Plant Height and Crown Radius over Time via Expectation-Maximization. In *ICRA Workshop on Robotics in Agriculture*, 2015.