# Jing DONG

Contact jdong@gatech.edu

404-580-7629

2113 Defoors Ferry Rd NW, APT D7

Atlanta, GA 30318

OBJECTIVE

To obtain a 2017 summer research intern position in Robotics or Computer Vision, with special interest in Simultaneous Localization and Mapping (SLAM), 3D reconstruction, sensor fusion, and motion planning.

SKILLS

Programming: C++(Preferred, 4 years), C(8 years), MATLAB(8 years), CUDA(3 months), Python(3 months) Robotics Software: ROS(4 years), OpenCV(6 years), GTSAM(4 years)

**EDUCATION** 

### Georgia Institute of Technology, Atlanta, GA

Aug 2013 - Aug 2018 (Expected)

Ph.D., Computer Science, GPA: 3.88/4.0

- Advisor: Frank Dellaert, Ph.D. & Byron Boots, Ph.D.

# Tsinghua University, Beijing, China

Aug 2008 - July 2012

B.E., Engineering Mechanics and Aerospace Engineering, GPA: 91.8/100.0

## EXPERIENCE Graduate Research Assistant

Aug 2013 - Present

Institute for Robotics & Intelligent Machines, Georgia Institute of Technology, Atlanta, GA Supervisor: Frank Dellaert, Ph.D. & Byron Boots, Ph.D.

- Project: 3D reconstruction/crop analysis over time 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.

Robotics Intern May 2015 - Aug 2015

iRobot Corporation, Bedford, MA

Supervisor: Scott Lenser, Ph.D.

- Project: Computer vision based 3D mapping and localization.

Visiting Student May 2014 - Aug 2014

Robotics Institute, Carnegie Mellon University, Pittsburgh, PA

Supervisor: Nathan Michael, Ph.D.

- Project: Built a multi quadrotors system for distributed and cooperative mapping.

#### Undergraduate Research Assistant

Aug 2010 - July 2012

School of Aerospace, Tsinghua University, Beijing, China

Supervisor: Haixin Chen, Ph.D.

- Project: Designed a quadrotor platform and an autopilot.
- Project: Heavy-lift aircraft design and Computational Fluid Dynamics (CFD) analysis.

## PUBLICATION

- 1. **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.
- 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.
- 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.
- 4. L. Carlone, **J. Dong**, S. Fenu, G. C. 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.

#### Preprint

1. **J. Dong**, J. G. Burnham, B, Boots, G. C. Rains, F. Dellaert, 4D Crop Monitoring: Spatio-Temporal Reconstruction for Agriculture. Submitted to *IEEE International Conference on Robotics and Automation (ICRA)*, 2017.