Man Xie

Personal Data

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Work Experience

May2020-Aug2020
Nvidia
Research Intern, Seattle Robotics Lab
Primary researcher on the following projects:
- Implement geometric fabrics algorithm, and apply geometric fabric modeling tools to a full robot model (Franka).
- Develop collocation techniques for imitation of trajectory demonstrations, with focus on learning geometric fabrics.

Apr 2016-Jul 2018
Narwal Intelligent Technology (Dongguan) Co., Ltd.
Director (Software Engineer), Mapping and Localization Group
Provide strategic leadership and solid work to the following:
- Develop reliable long-term localization algorithms for home floor vacuum.
- Design and implement mapping and localization system logic algorithm.
- Competitor products analysis.

Education

Aug 2018 - Current
PhD in Computer Science, **Georgia Tech**, Atlanta
Research: "Solving Manipulator Dynamics with Factor Graph"
          "Kinodynamic Motion Planning using Factor Graph"
          "Soft Robot Modeling and Simulation using Factor Graph"
Gpa: 4.0/4.0 |Advisor: Prof. Frank Dellaert

Jan 2014 - Dec 2015
Master in Aerospace Engineering, **Georgia Tech**, Atlanta
Research: "Autonomous Landing Accuracy of Guided Airdrop System"
          "Soft Contact Dynamics of Airdrop System Landing"
Gpa: 3.88/4.0 |Advisor: Prof. Mark Costello

Sept 2009 - Jun 2013
Bachelor in Mechanical Engineering,
Huazhong Univ. of Sci. & Tech, Wuhan, China
Gpa: 90/100

Publication

arxiv   M. Xie, F. Dellaert, *"A Unified Method for Solving Inverse, Forward, and Hybrid Manipulator Dynamics using Factor Graphs"*

arxiv   M. Xie, F. Dellaert, *"Batch and Incremental Kinodynamic Motion Planning using Dynamic Factor Graphs."*

arxiv   N. D. Ratliff, K. V. Wyk, M. Xie, A. Li, M. A. Rana, *"Optimization Fabrics."*

Scholarships and Honors

Sept. 2010	**State Scholarship**
Sept. 2011	**Chinese Academy of Science Scholarship**
Sept. 2012	**Sany Heavy Industry Scholarship**
July. 2012	Championship in **Federal International Robot-Soccer Association (FIRA) Robot-soccer Competition**
July. 2012	Championship in **International Humanoid Robot Olympic Games (IHOG)**
Jan. 2019	Represent Narwal in CES 2019, and won the "**Best of CES**" reward

Professional Skills

Program Language:	C++, PYTHON
Software & Platform:	MATLAB, MATHEMATICA, SOLIDWORKS, ROS, MOVEIT