Jie Li

PERSONAL DETAILS

Address	203 NAME Building, 2600 Draper Drive, Ann Arbor, MI, 48105
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EDUCATION

PhD of Engineering   2013-present
University of Michigan, Ann Arbor
   Matjor in Computer Vision, minor in Robotics; GPA: 3.92/4.00

Master of Engineering   2012-2013
University of Michigan, Ann Arbor
   Matjor in Signal Processing; GPA: 3.94/4.00

Bachelor of Engineering   2008-2012
Tsinghua University, Beijing
   Matjor in Electronic Engineering; GPA: 88.9/100

WORK EXPERIENCE

Research Assistant   2013-present
Deep Robot Optical Perception Lab (DROP Lab) &
Perceptual Robotics Laboratory (PeRL)
University of Michigan, Ann Arbor
   Project: Ship Hull Inspection Using Hovering Autonomous Underwater Vehicle (HAUV).

   - Sonar feature learning using Convolutional Neural Network(CNN) for multi-modality navigation.

   - Visual place recognition toward long-term place recognition and localization.

   Project: Underwater Structure Reconstruction using Autonomous Surface Vehicle.

   - Underwater path planning for efficient exploration in multi-sensor robotic system.

   - Visual-based navigation using stereo-camera.

Graduate Student Instructor   2013
University of Michigan, Ann Arbor
   Student Instructor for EECS 442: Computer Vision

Research Assistant   2012-2013
Vision Lab, University of Michigan, Ann Arbor
(Currently Computational Vision and Geometry Lab, Stanford University)
   Project: Semantic Structure From Motion.

   - Jointly model Structure from Motion and Object Detection together, and improve the performance of both sides.

Research Assistant, Part-time Intern   2011-2012
Hardware Computing Group, Microsoft Research Asia (MSRA)
   Project: Next generation 3D Web Camera for Win8 operation system

   - Depth reconstruction based on infrared LED aided depth estimation.

   - Depth map enhancement for finger tip detection

PUBLICATION

1. Jie Li and M. Johnson-Roberson. Multi-altitude multi-sensor fusion framework for auv exploration and survey. In *MTS/IEEE OCEANS*, 2014

2. Jie Li, Ryan M. Eustice, and Matthew Johnson-Roberson. High-level visual features for underwater place recognition. In *Robotics and Automation (ICRA), 2015 IEEE International Conference on*, pages 3652–3659, May 2015

3. Jie Li, Ryan M. Eustice, and Matthew Johnson-Roberson. Underwater robot visual place recognition in the presence of dramatic appearance change. In *Proceedings of the IEEE/MTS OCEANS Conference and Exhibition*, Washington, D.C., USA, October 2015. Accepted, To Appear

4. Jie Li, Paul Ozog, Jacob Abernethy, Ryan M. Eustice, and Matthew Johnson-Roberson. Utilizing high-dimensional features for real-time robotic applications: Reducing the curse of dimensionality for recursive bayesian estimation. In *Intelligent Robot and System (IROS), 2016 IEEE/RSJ International Conference on*, Daejeon, Korea, October 2016. Submitted

SKILLS

Programming Languages	C, C++, Matlab, Python, LaTeX
Libraries or Software	ROS, OpenCV, Caffe