

LEI TAI

CONTACT INFORMATION	CYT2014, the Hong Kong University of Science and Technology Clear Water Bay, HK	Tel: 852-6560-9949 Web: http://tailei.ram-lab.com Email: onlytailei@gmail.com
EDUCATION	Hong Kong University of Science and Technology (HKUST) , Hong Kong Ph.D. in Robotics. Jan. 2017 - present <ul style="list-style-type: none">• Research Interests: <i>Mobile Robotics, Deep Learning, Deep Reinforcement Learning</i>• Advisor: Dr. Ming Liu University of Freiburg , Germany Visiting Scholar in Autonomous Intelligent Systems Lab Mar. 2017 - Aug. 2017 <ul style="list-style-type: none">• Advisor: Prof. Dr. Wolfram Burgard City University of Hong Kong (CityU) , Hong Kong Ph.D. in Mechanical and Biomedical Engineering. Sep. 2015 - Jan. 2017 <ul style="list-style-type: none">• Advisor: Dr. Ming Liu Harbin Institute of Technology (HIT) , Harbin, China P.R. M.S. in Engineering. Sep. 2012 - Jun. 2014 <ul style="list-style-type: none">• GPA: 81.20/100 (Top 30%). B.S. in Engineering. Sep. 2008 - Jun. 2012 <ul style="list-style-type: none">• GPA: 88.17/100, (Top 10%).	
RESEARCH EXPERIENCE	Deep-Learning-based Mobile Robotics Navigation Aug. 2015 - present Robotics and Multiperception Lab, HKUST <ul style="list-style-type: none">• Indoor Obstacle Avoidance aided by Convolutional Neural Networks.• End-to-End Deep Reinforcement Learning in Robotics. Industrial Robot Automation Aug. 2014 - Jun. 2015 Robotics Institute, HKUST <ul style="list-style-type: none">• Industrial Automation in 3C electrical products workshops.	
PUBLICATIONS	<ol style="list-style-type: none">1. Lei Tai, Shaohua Li, and Ming Liu, A Deep-Network Solution Towards Model-less Obstacle Avoidance, IEEE/RSJ International Conference on Intelligent Robots and Systems <i>IROS</i>, Daejeon, Korea, 2016.2. Lei Tai, Ming Liu, A Robot Exploration Strategy Based on Q-learning Network, IEEE International Conference on Real-time Computing and Robotics, <i>RCAR</i>, Angkor Wat, Cambodia, June 6-10, 2016.3. Lei Tai, Ming Liu, "Mobile Robots Exploration through CNN-based Reinforcement Learning", <i>Robotics and Biomimetics</i>, 2016.4. Lei Tai, Shaohua Li, Ming Liu, "Autonomous Exploration of Mobile Robots through Deep Neural Networks", Submitted to <i>International Journal of Advanced Robotic Systems, IJARS</i>, 2016.	

SUBMITTED PUBLICATIONS	<ol style="list-style-type: none"> 1. Lei Tai, Ming Liu, “Deep-learning in Mobile Robotics - from Perception to Control Systems: A Survey on Why and Why not”, Submitted to <i>International Journal of Robotics Research, IJRR</i>, 2016. 2. Lei Tai, Ming Liu, “Towards cognitive exploration through deep reinforcement learning for mobile robots”, Submitted to <i>International Conference on Robotics and Automation, ICAR</i>, 2017. 3. Lei Tai, Qiong Ye, Ming Liu, “PCA-aided Fully Convolutional Networks for Semantic Segmentation of Multi-channel fMRI”, Submitted to <i>International Conference on Robotics and Automation, ICAR</i>, 2017.
AWARDS	<p>Contest Awards</p> <ul style="list-style-type: none"> • 5th in 2016 Cybathlon Powered Wheelchair Race, Zurich, Switzerland Oct 2016 • Runner-up of 2014 ABU Robocon, Zoucheng, China June 2014 • Best Technology of 2012 ABU Robocon, Harbin, China June 2012 • Honorable Mention of Mathematical Contest in Modeling Mar 2011 <p>Student Awards</p> <ul style="list-style-type: none"> • Honorable Scholarship Award, HIT (Top 10%) June 2012 • Jinjiang Scholarship Award, HIT (Top 1%) May 2010
TEACHING EXPERIENCE	<p>Teaching Assistant Spring 2015</p> <p>ELEC 3200: System Modeling, Analysis and Control Instructor: Prof. Ling Shi ECE Department Hong Kong University of Science and Technology</p>
SERVICE	<p>Referee Service</p> <ul style="list-style-type: none"> • International Journal of Advanced Robotic Systems, <i>IJARS</i>. • International Conference on Robotics and Automation <i>ICRA</i>, 2017. • International Conference on Intelligent Robots and Systems <i>IROS</i>, 2016 2017. • International Conference on Real-time Computing and Robotics <i>RCAR</i>, 2016. <p>Conference Service</p> <ul style="list-style-type: none"> • Program Committee Member of IEEE International Conference on Real-time Computing and Robotics <i>RCAR</i>, June, 2016. • Program Committee Member of International Conference on Computer Vision Systems <i>ICVS</i>, Aug, 2017.
PROFESSIONAL SKILLS	<p>Programming</p> <ul style="list-style-type: none"> • Experienced in Python, C++, Lua <p>Frameworks</p> <ul style="list-style-type: none"> • Deep Learning: PyTorch, Keras, TensorFlow, Caffe • Robotics: ROS, V-REP, Gazebo
LANGUAGE SKILLS	<p>TOEFL-IBT</p> <ul style="list-style-type: none"> • Reading (28), Listening (28), Speaking (20), Writing (25), Total (101). Mar. 2013 <p>GRE</p> <ul style="list-style-type: none"> • Verbal (540), Quantitative (800), Analytical Writing (3.5). Oct. 2010