Yangwei You

PERSONAL DATA

CITIZEN: Chinese DATE OF BIRTH: November, 1989

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EDUCATION

2014.11-current Istituto Italiano di Tecnologia, Italy Ph.D.

Research Line: Humanoids and Human Centered Mechatronics

2011.08-2013.07 Harbin Institute of Technology, China Master

Major: Mechatronic Engineering in State Key Robotics Institute

2007.08-2011.07 Harbin Institute of Technology, China Bachelor

Major: Mechanical Design, Manufacture and Automation

PROJECTS

NOV. 2014 Ph.D. thesis in Istituto Italiano di Tecnologia. Focused on optimization-based high-level motion planning and low-level torque control on the whole-body humanoid robot as part of FP7 European project WALK-MAN. Good position tracking and accurate contact

force regulation were achieved.

Sept. 2017 | Control Software Development for Cooky Robot Arms of MROBOT Ltd

MAR. 2017

A short-term working package for the robot arm development of MROBOT Ltd. Based on ROS, developed a uniform control platform to perform simulation in Gazebo and run experiments on real robots with easy switch, where motion planning and teaching

playback were integrated.

Nov. 2014 | Design Engineer in Sensata Technologies

JULY 2013 | Worked as a design engineer in an American Company "Sensata Technologies" in China

mainland, mainly in charge of the deformation analysis and design of ceramic sensing

element of the automotive pressure transducer.

JULY 2013 | Control Method Study of Stable Quadruped Trot Running

JULY 2011 Master thesis subordinated to the national 863 project of China. A combined simulation platform of ADAMS and MATLAB was built for a 3D quadruped robot. Different control

strategies were investigated to realize stable running of quadruped robots.

OCT. 2012 Design and Manufacture of Contact Resistance Measuring Instrument

JUNE 2012 A delicate fixture and a 3-axis motion platform were built to automatically measure the contact resistance between electrical contacts with static contact force control accuracy

+0.005N and position control accuracy 0.1mm.

JUNE 2011 | Software Development for Vitesse2 Microwave Oven of Whirlpool Ltd

OCT. 2010 Bachelor thesis as a University and Whirlpool Joint R&D project. A synthetical control program, running in STM8 micro-controller, was developed successfully for the whole

Vitesse2 microwave oven series, one software for different specifications.

SEPT. 2010 Design of Portable and Multi-functional Rescue Instrument

SEPT. 2009 Won **national first prize** in the fourth national undergraduate mechanical innovative design competition with "portable and multifunctional rescue instrument" as team leader.

PUBLICATION

- 1. Songyan Xin, Yangwei You, Chengxu Zhou, Cheng Fang, and Nikos Tsagarakis. A torque-controlled humanoid robot riding on a two-wheeled mobile platform. In *International Conference on Intelligent Robots and Systems (IROS)*, 2017, Accepted.
- 2. Yangwei You, Chengxu Zhou, Zhibin Li, and Nikos Tsagarakis. A study of nonlinear forward models for dynamic walking. In *International Conference on Robotics and Automation (ICRA)*, 2017.
- 3. Yangwei You, Songyan Xin, Chengxu Zhou, and Nikos Tsagarakis. Straight leg walking strategy for torque-controlled humanoid robots. In *International Conference on Robotics and Biomimetics (ROBIO)*, 2016.
- 4. Yangwei You, Zhibin Li, Darwin G Caldwell, and Nikos G Tsagarakis. From one-legged hopping to bipedal running and walking: A unified foot placement control based on regression analysis. In *International Conference on Intelligent Robots and Systems (IROS)*, 2015.
- 5. Yangwei You, Zhibin Li, Nikos G Tsagarakis, and Darwin G Caldwell. Foot placement control for bipedal walking on uneven terrain: An online linear regression analysis approach. In *International Conference on Climbing and Walking Robots and Support Technologies for Mobile Machines (CLAWAR)*, 2015.

SCHOLARSHIPS

2015-2017	Ph.D Student Scholarship from Istituto Italiano di Tecnologia
2011-2013	Postgraduate Scholarship(first class 1 time, second class 1 time)
2007-2011	People's Scholarship(first class 1 time, second class 4 times, third class 2 times)
2007-2011	Fuji Xerox Enterprise Scholarship(1 time); STX Enterprise Scholarship(1 time)
2007-2011	Merit Student(2 times); Excellent Graduate of Harbin Institute of Technology

LANGUAGES

CHINESE: Mother tongue

ENGLISH: Fluent

COMPUTER SKILLS

Basic: Linux, CMake, Python, Protel.

Familiar: C, C++, MCU, SolidWorks, Matlab, ADAMS, ODE, ROS, GAZEBO, Movelt!. Knowledge: Kinematics, Dynamcis, Motion planning, Robot control, Optimization.

INTERESTS AND ACTIVITIES

Robotics, Open-Source, Programming Badminton, Swimming, Hiking