Hejia Zhang

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EDUCATION

University of Southern California Los Angeles, USA

M.S. IN COMPUTER SCIENCE, GPA: 4.0/4.0 01/2018 - Present

Zhejiang University Hangzhou, China

B.E. IN BIOENGINEERING, GPA: 3.63/4.0 09/2013 - 07/2017

Honor Second-Class Scholarship for Outstanding Merits, Zhejiang University 2013 – 2014

Third-Class Scholarship for Outstanding Merits, Zhejiang University 2015 – 2016

ACADEMIC EXPERIENCE

Robotic Embedded Systems Laboratory (Prof. Gaurav S. Sukhatme)

Graduate Research Assistant, University of Southern California

02/2018 - Present

- Conducting peer-reviewed research on imitation and reinforcement learning (see publications)
- Designing and developing robot learning environments for Sawyer robot, in simulation and on the real robot
- Developing open-source deep reinforcement learning framework $Garage^1$
- Supporting diagnosis and repair of hardware problems on RESL's PR2 robot, reached out to research groups from several universities for potential solutions

Institute of Biosystem Automation and Information Technology (Prof. Hui Fang)

Undergraduate Research Assistant, Zhejiang University

02/2016 - 01/2017

- Developed real-time point cloud data processing software, responsible for GUI, data-processing modules
- Prototyped novel systems for rapidly detecting the ATP content of plants (see patents)

PUBLICATIONS

- Hejia Zhang², Eric Heiden², Ryan Julian, Zhangpeng He, Joseph J. Lim, and Gaurav S. Sukhatme. **Auto-conditioned Recurrent Mixture Density Networks for Complex Trajectory Generation**. Submitted to International Conference on Robotics and Automation (ICRA), 2019.
- Zhanpeng He, Ryan Julian, Eric Heiden, Hejia Zhang, Stefan Schaal, Joseph J. Lim, Gaurav S. Sukhatme, Karol Hausman. Zero-Shot Skill Composition and Simulation-to-Real Transfer by Learning Task Representations. Submitted to International Conference on Robotics and Automation (ICRA), 2019.
- Ryan Julian², Eric Heiden², Zhangpeng He, Hejia Zhang, Stefan Schaal, Joseph J. Lim, Gaurav S. Sukhatme, Karol Hausman. Scaling simulation-to-real transfer by learning composable robot skills. To be presented at International Symposium on Experimental Robotics (ISER), 2018.

PATENTS

• Fang, Hui; Zhang, Hejia; Zhang, Xuzhou; He, Yong. 2017. Method for rapidly detecting content of ATP of plant leaf. CN107515211A, filed Dec 26, 2017. Patent Application

¹https://github.com/rlworkgroup/garage

²Equal contribution

PROFESSIONAL EXPERIENCE

Seeta Technology Co., Ltd

 $Beijing,\ China$

Software Engineer

01/2017 - 12/2017

- Developed and maintained face recognition cloud platform which accepts and processes user management, face feature management and face recognition requests from hundreds of different organizations
- Implemented online data annotation platform which allows non-technical users to clean and annotate unlabeled data
- Developed face recognition access control system which has been employed in a lot of schools and companies
- Supervised and managed software development interns

SKILLS

Programming Languages: C/C++ Python Matlab Linux Shell Scripting

 ${\bf Code\ Version\ Control:}\quad {\rm SVN}\quad {\rm Git}$

Machine Learning Development Framework: TensorFlow Pytorch Robotics Development Framework: Robot Operating System (ROS)

Robot Simulator: Gazebo MuJoCo

Computer Vision Libraries: OpenCV Point Cloud Library (PCL)