

YIXUAN WEI

Homepage: <https://weiyx16.github.io>

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EDUCATION

A Junior at Tsinghua University, Beijing, China

Department of Automation

Second Degree at Tsinghua University, Beijing, China

Business Administration

September 2016 - Present

Overall GPA: **3.6/4**, RANK: **10/165**

September 2017 - Present

AWARDS AND SCHOLARSHIPS

National Scholarship, Ministry of Education of China

2018

The **Second** Prize in the 36th *Challenge Cup* Students Extracurricular Academic Science and Technology Contest, Tsinghua University

The **First** Prize in the 20th National Robot and Artificial Intelligence Competition, Chinese Association for Artificial Intelligence

Comprehensive Scholarship(**0.5%** of student body per year), Tsinghua University

2017

Social Practice Excellence Award, Tsinghua University

Social Service Excellence Award, Tsinghua University

RESEARCH INTERESTS

- **Computer Vision** — 3D Vision / Biological Application
- **Machine Learning** — Multimodal Learning / Reinforcement Learning
- **Robotics** — Robotic manipulation / Intelligent Agent

RESEARCH EXPERIENCE

Sakura Exchange Program in Science

Short Term Exchange Student

August 2017

Soka University, Japan

- Visited Soka University, Japan and some laboratories on the campus. Shared experience with Ph.D students and took some lectures from professors.

With Prof. Huaping Liu¹

Undergraduate Researcher

September 2017 - Present

Computer Science Department, THU

- Research on **Robotic Manipulator and Deep Reinforcement Learning**
- Work in a group of four with a focus on utilizing new composite structure and reinforcement learning methods to increase the success rate of grasping objects for robots.
- Designed and built a robotic manipulator with two parallel pinching fingers and a suction cup, for which we have applied for a **patent**

¹http://www.cs.tsinghua.edu.cn/publish/csen/4623/2010/20101224001510021632768/20101224001510021632768_.html

- Recently we focus on introducing active interaction operation into our system for object grasping in complex scenario. My work is mainly about designing Deep Reinforcement Learning model of our system to generate a promising grasping policy by active exploration on the environment. We submit our work to IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS**), 2019. And it's under review. For further information, see <https://weiyx16.github.io/RobotGrasping>

With Prof. Yebin Liu²

Undergraduate Researcher

May 2018 - Present

BBNC Lab, THU

- Research on **3D Vision and Behavior Capture**
- Worked with a Ph.D candidate on a project about detailed geometrical reconstruction of a human body from a single RGB-image. We constructed a human model dataset that pairs detailed mesh, synthetic images and skeleton with a corresponding human model and utilized volume-based Deep Learning to solve challenging reconstruction problem. For further information, see <http://www.liuyebin.com/deephuman/deephuman.html>
- Current research focus is on motion capture and behavior of laboratory mice with a multi-camera system (a long term project). We hope to contribute to computational ethology and neuroscience, motivated by computer vision and big data. Recently work is about 2D joints detection of mice and 3D skeleton reconstruction.

SKILLS

Programming	C/C++, C#, MATLAB, Python
Software & Tools	Latex, Adobe Photoshop, Adobe Premiere
Language	Chinese(Native), English(TOFEL 102)

²<http://liuyebin.com/>