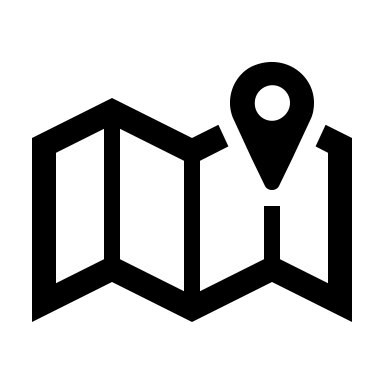
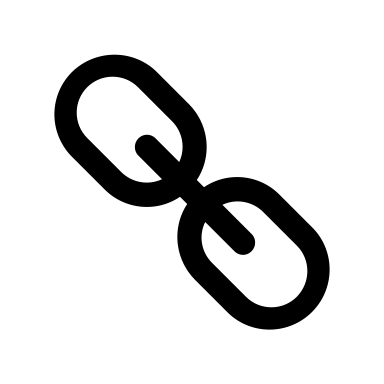
**Xiao**(Barry) **Liang**

 [liangxiao521@g.ecc.u-tokyo.ac.jp](mailto:liangxiao521@g.ecc.u-tokyo.ac.jp)  +81 07010769166  4-5-29 Komaba, Meguro-ku, Tokyo  [https://barry-liang.github.io](https://barry-liang.github.io/)

**SUMMARY Seeking for an internship in 2020 (prefer online work)**

* + - * + Skilled in C++/C, Python, Matlab, ROS and OpenCV. ()
        + Familiar with Linux, Pytorch, Latex, CAD, Arduino, Webots and Universe Robot ()
        + Experienced in Cuda, OpenMP, Tensorflow and V-REP Pro. ()
        + Fluent in English and beginner level in Japanese.
        + Interdisciplinary engineer, fully trained project experience with leadership, fast learner and

nice group worker.

**EDUCATION The University of Tokyo (UT)**, Tokyo, Japan

*Member of Yamakawa Lab. (High Speed Flexible Robotics Lab)*

M.S. in Mechanical Engineering (English Program) *Sept 2019 – Aug 2021 (expected)*

**Shanghai Jiao Tong University（SJTU）**, Shanghai, China

*University of Michigan – Shanghai Jiao Tong University Joint Institute (UM-SJTU JI)*

B.Sc. in Mechanical Engineering (English Program) *Sept 2015* *– Aug 2019*

Overall GPA: 3.77/4.00; Major GPA: 3.93/4.00 (ranking 2/58).

**COURSES Coursera:** Deep learning, Machine learning

**HIGHLIGHTS UT:** Robot Manipulation, Visual Media Engineering, System and Control Theory

**SJTU:** Dynamics and Vibrations, Linear Algebra, Automatic Control, Robotics

**RESEARCH**  **Control of Dual-Arm Diabolo Robot based on Flexible Manipulation and Visual Feedback**

**EXPERIENCE** *Yamakawa Laboratory (High Speed Flexible Robotics Lab)* @UT *June 2020 –present*

• Apply visual feedback to measure the 6D pose of diabolo in real time.

• achieve basic spinning balance and tosses of the diabolo using dual-arm control

**Design and Analysis of a Wheel-Leg Hybrid Robot with Novel Transformation Mechanism**

*Laboratory of Smart Solids and Structures*  @SJTU *June 2018* *– Sept 2018*

• Designed a vehicle robot with activelytransformed three-leg wheels

• Conducted automatic control of wheel-transformation to pass through sand road and smooth road

**SELECTED Recognition and Catching of a Thrown Ring using High-Speed Vision**

**PROJECTS** *Robomech Conference*  @Japan *Feb 2020 – May 2020*

·Proposed a marker-based binocular pose estimation method in real time

·Implemented a self-adjustable control strategy to catch a ring object.

**CCD Camera Imaging based on** **Monte-Carlo Algorithm (Silver Award)**

*VM450 Capstone Design* @SJTU *Sept 2018 – Dec 2018*

• Designed a software-based optical imaging model to analog CCD camera imaging system

• Compared small hole imaging and lens imaging and conducted feasibility analysis

**Motion Planning of Robot MORO: Roaming Obstacle Avoidance and Chassis Path Planning**

*VM467 Introduction to Robotics* @SJTU*June 2018 – Aug 2018*

•Utilized the sensor system and SLAM algorithm to plan the path and control the movement

•Applied and compared the A star and Dijkstra algorithm in shortest path planning

**A Spi****nning Bike-based Air Purification Device**

*VG100 Introduction to Engineering* @SJTU  *June 2016 – Aug 2016*

·Designed and manufactured an exercise bike with belt transmission

·Designed and installed an air purification shell to pump out air through the filtration system

**TUTOR Undergraduate Education Office, UM-SJTU JI**

**EXPERIENCE** *Teaching Assistant* @SJTU *Sept 2018 – Aug 2019*

• Worked as TA for one major course: VM395 Laboratory I

**Academic Advising Center, UM-SJTU JI**

*Student Advisor* @SJTU *Sept 2017 – Aug 2019*

• Provide academic advice to JI students

• Hold workshops aiming to promote academic skills and share professional interests

**SELECTED** The Japanese Government's MEXT scholarship *Sept 2019- Aug 2021*

**HONORS**  Shanghai Distinguished Graduates Award *June 2019*

National Scholarship (Twice, top 1% in SJTU) *Oct 2017, Oct 2018*

Honorable Mention in Mathematical Contest in Modeling  *Apr* 2*018*

Yu Liming Scholarship (Twice, top 0.5% in UM-SJTU JI)   *Nov 2016, Nov 2017*

Undergraduate Excellent Scholarship (3 times, top 5% in SJTU)  *Dec 2016, Dec 2017, Dec 2018*