

Xiao(Barry) Liang

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SUMMARY	Seeking for a Job related to Robotics, Algorithm or Computer Vision Engineer <ul style="list-style-type: none">● Skilled in C++, Python, MATLAB, ROS and OpenCV. (★★★★)● Familiar with Linux, PyTorch, Shell, Webots and Universe Robot (★★★★)● Experienced in Blender, Cuda, OpenMP, and V-REP Pro. (★★)● Fluent in English and beginner level in Japanese.● Interdisciplinary engineer, fully trained project experience with leadership, nice group worker		
EDUCATION	The University of Tokyo (UT), Tokyo, Japan <i>Member of Yamakawa Lab. (High Speed Flexible Robotics Lab)</i> M.S. in Mechanical Engineering (English Program) <i>Sept 2019 – Aug 2021 (expected)</i> Shanghai Jiao Tong University (SJTU), Shanghai, China <i>University of Michigan – Shanghai Jiao Tong University Joint Institute (UM-SJTU JI)</i> B.Sc. in Mechanical Engineering (English Program) <i>Sept 2015 – Aug 2019</i> Overall GPA: 3.77/4.00; Major GPA: 3.93/4.00 (ranking 2/58).		
INTERNSHIP	Computer Vision Engineer, Huawei Tokyo Research Center, Tokyo, Japan <i>Oct 2020 -present</i>		
COURSES	Deep learning, Machine learning, Robot Manipulation, Data Science and Machine Learning,		
HIGHLIGHTS	Dynamics and Vibrations, Linear Algebra, Automatic Control, Intro to Robotics,		
RESEARCH	Dual Arm Cooperation Control of Diabolo Robot based on Real-Time Visual Feedback		
EXPERIENCE	<i>Yamakawa Laboratory (High Speed Flexible Robotics Lab)</i> @UT <i>Dec 2020 –present</i> <ul style="list-style-type: none">• Apply visual feedback to measure the 6D pose of diabolo in real time.• Achieve basic spinning balance of the diabolo using dual-arm control Tracking and Catching of a Thrown Ring <i>Yamakawa Laboratory (High Speed Flexible Robotics Lab)</i> @UT <i>June 2020 – Dec 2020</i> <ul style="list-style-type: none">• Proposed a marker-based 6D pose tracking algorithm using a high-speed vision system.• Designed a catching point selection algorithm to make the robot accomplish high-speed catching Design and Analysis of a Wheel-Leg Hybrid Robot with Novel Transformation Mechanism <i>Laboratory of Smart Solids and Structures</i> @SJTU <i>June 2018 – Sept 2018</i> <ul style="list-style-type: none">• Designed a vehicle robot with actively transformed three-leg wheels• Conducted automatic control of wheel-transformation to pass through sand road and smooth road		
SELECTED PROJECTS	CCD Camera Imaging (Silver Award) <i>VM450 Capstone Design</i> @SJTU <i>Sept 2018 – Dec 2018</i> <ul style="list-style-type: none">• 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 <i>VM467 Introduction to Robotics</i> @SJTU <i>June 2018 – Aug 2018</i> <ul style="list-style-type: none">• 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 Spinning Bike-based Air Purification Device <i>VG100 Introduction to Engineering</i> @SJTU <i>June 2016 – Aug 2016</i> <ul style="list-style-type: none">• 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 EXPERIENCE	Undergraduate Education Office, UM-SJTU JI <i>Teaching Assistant</i> @SJTU <i>Sept 2018 – Aug 2019</i> <ul style="list-style-type: none">• Worked as TA for one major course: VM395 Laboratory I Academic Advising Center, UM-SJTU JI <i>Student Advisor</i> @SJTU <i>Sept 2017 – Aug 2019</i> <ul style="list-style-type: none">• Provide academic advice to JI students• Hold workshops aiming to promote academic skills and share professional interests		
SELECTED HONORS	The Japanese Government's MEXT scholarship <i>Sept 2019- Aug 2021</i> Shanghai Distinguished Graduates Award <i>June 2019</i> National Scholarship (Twice, top 1% in SJTU) <i>Oct 2017, Oct 2018</i> Honorable Mention in Mathematical Contest in Modeling <i>Apr 2018</i> Yu Liming Scholarship (Twice, top 5% in UM-SJTU JI) <i>Nov 2016, Nov 2017</i> Undergraduate Excellent Scholarship (3 times, top 3% in SJTU) <i>Dec 2016, Dec 2017, Dec 2018</i>		