

Xiao(Barry) Liang

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🔗 <https://barry-liang.github.io/resume/>

SUMMARY	Seeking for a PhD position related to Robot Learning and 3D Vision <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) GPA: 4/4 Sept 2019 – Aug 2021 (expected) 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) Sept 2015 – Aug 2019 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 Oct 2020 -present	
COURSES	Deep learning, Machine learning, Robot Manipulation, Data Science and Machine Learning,	
HIGHLIGHTS	Linear Algebra, Automatic Control, Intro to Robotics, Data Structure and Algorithms	
RESEARCH EXPERIENCE	Marker-Based Pose Estimation for Rotating Objects using High-Speed Vision <i>Yamakawa Laboratory (High Speed Flexible Robotics Lab) @UT Dec 2020 –present</i> <ul style="list-style-type: none">• Apply visual feedback to measure the position and orientation of rotating objects in real time.• Achieve a general marker-matching algorithm to avoid the marker labeling Tracking and Catching of a Thrown Ring <i>Yamakawa Laboratory (High Speed Flexible Robotics Lab) @UT June 2020 – Dec 2020</i> <ul style="list-style-type: none">• Proposed a marker-based 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 @SJTU 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 @SJTU 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 @SJTU 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 @SJTU 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 @SJTU 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 @SJTU 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 Sept 2019- Aug 2021 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 2018 Yu Liming Scholarship (Twice, top 5% in UM-SJTU JI) Nov 2016, Nov 2017 Undergraduate Excellent Scholarship (3 times, top 3% in SJTU) Dec 2016, Dec 2017, Dec 2018	