**Yixuan Wang**

(734) 546-8061 1760 Broadway St., Apt. N205

yixuanwa@umich.edu Ann Arbor, MI 48105

**Objective**

Ph.D. or Master positions in robotics

**Education**

**Shanghai Jiao Tong University** Minhang District, Shanghai

*Bachelor of Mechanical Engineering at SJTU-UM Joint Institute* July 2017 – August 2021

GPA: 3.86/4.00

**University of Michigan** Ann Arbor, Michigan

*Bachelor of Computer Science at College of Engineering* September 2019 – April 2021

GPA: 4.00/4.00

**Computer Skills**

Language: C++, Matlab, C, Python, ARM

Application: LaTeX, CATIA, Origin, SolidWorks, Arduino, LabVIEW, OpenCV, SmartFusion, PyTorch, Qt, ROS, Blender

**Project**

**Design and Manufacturing II** Minhang District, Shanghai

*Vehicle based on transformable wheels and caterpillar bands*  May 2019 – August 2019

• Designed the structure of transformable wheels and the whole vehicle

• Wrote the code for controlling and auto turning based on Arduino

**Mechanical Laboratory I** Minhang District, Shanghai

*Young’s modulus measurement based on accelerometer* May 2019 – August 2019

• Modelled the vibrating beams based on the second-order ordinary differential equation

• Proposed and analyzed a new way of measuring Young’s modulus based on accelerometer

**University of Michigan Compliant Systems Design Laboratory** Ann Arbor, Michigan

*Model-free control over soft robots’ shape based on visual information* September 2019 – present

• Segment soft robots in real time based on texture segmentation using Gabor filter and k-means clustering

• Keep track of the shape based on Bezier curve fitting and Ceres solver.

• Apply Deep Q-Learning to control soft robots’ shape

**University of Michigan Autonomous Robotic Manipulation Lab** Ann Arbor, Michigan

*Deformable object tracking robust to self-occlusion and obstacle interaction* May 2020 – present

• Modify posterior constrain of GMM EM algorithm with CPD and LLE regularization term

• Relax the assumption about known geometry of obstacles

• Incorporate Kalman filter and prediction model of deformable object to deal with self-occlusion cases

**Experience**

**SJTU-UM Joint Institute** Minhang District, Shanghai

*Teaching Assistant of Honor Physics I* May 2019 - August 2019

*Teaching Assistant of Honor Calculus I* September 2018 - December 2018

• Organized recitation class and office hour to promote students’ understanding of course

• Graded the assignment and examination to judge level of students fairly

**SJTU-UM Joint Institute Advising Center** Minhang District, Shanghai

*Advisor* September 2018 - August 2019

• Solved problems of freshmen students about study problems and major choice

• Organized workshop about research opportunities, internship and program application for students

**Honors**

Yu Liming Scholarship Fall 2017

National Encouragement Scholarship Fall 2018

Bronze Medal in University Physics Competition Fall 2018

The John Wu & Jane Sun Sunshine Scholarship Fall 2018

Merit Student Fall 2018

Undergraduate Excellent Scholarship (Grade 2) (Top 10%) Fall 2018

Lums Scholarship Summer 2019

Undergraduate Excellent Scholarship (Grade 2) (Top 10%) Fall 2019