

Yixuan Wang

(734) 546-8061
yixuanwa@umich.edu

1760 Broadway St., Apt. N205
Ann Arbor, MI 48105

Objective

Ph.D. or Master positions in robotics

Education

Shanghai Jiao Tong University

Bachelor of Mechanical Engineering at SJTU-UM Joint Institute
GPA: 3.86/4.00

Minhang District, Shanghai
July 2017 – August 2021

University of Michigan

Bachelor of Computer Science at College of Engineering
GPA: 4.00/4.00

Ann Arbor, Michigan
September 2019 – April 2021

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

Vehicle based on transformable wheels and caterpillar bands

- Designed the structure of transformable wheels and the whole vehicle
- Wrote the code for controlling and auto turning based on Arduino

Minhang District, Shanghai
May 2019 – August 2019

Mechanical Laboratory I

Young's modulus measurement based on accelerometer

- 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

Minhang District, Shanghai
May 2019 – August 2019

University of Michigan Compliant Systems Design Laboratory

Model-free control over soft robots' shape based on visual information

- 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

Ann Arbor, Michigan
September 2019 – present

University of Michigan Autonomous Robotic Manipulation Lab

Deformable object tracking robust to self-occlusion and obstacle interaction

- 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

Ann Arbor, Michigan
May 2020 – present

Experience

SJTU-UM Joint Institute

Teaching Assistant of Honor Physics I

Teaching Assistant of Honor Calculus I

- Organized recitation class and office hour to promote students' understanding of course
- Graded the assignment and examination to judge level of students fairly

Minhang District, Shanghai
May 2019 - August 2019
September 2018 - December 2018

SJTU-UM Joint Institute Advising Center

Advisor

- Solved problems of freshmen students about study problems and major choice
- Organized workshop about research opportunities, internship and program application for students

Minhang District, Shanghai
September 2018 - August 2019

Honors

Yu Liming Scholarship

National Encouragement Scholarship

Bronze Medal in University Physics Competition

The John Wu & Jane Sun Sunshine Scholarship

Merit Student

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

Lums Scholarship

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

Fall 2017

Fall 2018

Fall 2018

Fall 2018

Fall 2018

Fall 2018

Summer 2019

Fall 2019