

Zhiyuan Chen

SUSTech

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Education

- 2021.9 – **Southern University of Science and Technology(SUSTech)**, *U.S.News world #213*.
present **Master of Engineering, Electronics Science and Technology**, *Department of Electrical and Electronic Engineering*, Shenzhen, China.
- Advisor: **Dr. Max Q.-H. Meng**
 - Robotic Manipulation and Deep Learning
 - Accumulative GPA: **3.59**/4.0
 - Accumulative Score: **90.8**/100
 - Ranking: 12/52 (top 23%)
- 2017.9 – **Xidian University**, *Project 211*.
- 2021.6 **Bachelor of Engineering, Electronic Information Engineering**, *School of Electronic Engineering, Xidian University*, Xi'an, China.
- Accumulative GPA: **3.7**/4.0
 - Accumulative Score: **86.2**/100
 - Ranking: 27/226 (top 12%)

Article

† indicates equal contribution, and * indicates corresponding authorship.

Journal Article

- 2023 **Learning to Predict Diverse Stable Placements for Extrinsic Manipulation on a Support Plane.**
Peng Xu[†], **Zhiyuan Chen[†] (co-first author)**, Jiankun Wang and Max Q.-H. Meng*, **IEEE Transactions on Cognitive and Developmental Systems (TCDS)**, JCR Q2, IF=5.
- [Project][DataSet][Paper]

Research Experience

Shenzhen Key Laboratory of Robotics Perception and Intelligence, SUSTech

- 2021.10–
2023.5 **Learning to Predict Diverse Stable Placements for Extrinsic Manipulation on a Support Plane.**
- Aiming to facilitate extrinsic manipulation tasks with regrasping, which often requires generating intermediate placement locations for the object being manipulated.
 - Proposed a pipeline with the stages of orientation generation, position refinement, and placement discrimination to obtain accurate and diverse stable placements based on the perception of point clouds.
 - A large-scale dataset is created for training, including simulated placements and contact information between objects and the plane.

Advisor **Dr. Max Q.-H. Meng**, *Department Head, Chair Professor, Department of Electronic and Electrical Engineering, SUSTech*

Honors and Awards

- 2019 **National Second Prize**, the "Challenge Cup" National College Students Extracurricular Academic and Scientific Works Competition.
- 2018 **Principal-Class Excellent Student Scholarship**, Xidian University, Xi'an, China.

Relevant Coursework

Graduate Coursework.

- Advanced Nonlinear Optimization (98)
- Autonomous Robot Navigation (88)
- Advanced Academic Writing and Communication (88)
- Introduction to Information Technology (98)
- Integrated Circuit Design with EDA Design Methodology (93)
- Computational Method (90)

Undergraduate Coursework.

- Digital Signal Processing (85)
- Modern Image Analysis (85)
- EDA Digital Circuit and Logic Design EDA Experiment (90)
- Digital Circuits and Logic Design (93)
- High-level Language Programming (98)

Skills

English: TOEFL iBT 91 (reading 27, listening 24, speaking 22, writing 18)

Programming Skills: Python, PyTorch, Tensor, Matlab

Robotic Technologies: PyBullet, Franka Panda, ROS, RealSense, Photoneo 3D Camera, Kinova gen2&3, Universal Robots 5&10

Computer Vision Technologies: open3d, torch3d, opencv

Academic Service

Paper Reviewer.

- IEEE International Conference on Robotics and Automation (**ICRA**)
- IEEE International Conference on Intelligent Robots and Systems (**IROS**)
- IEEE Robotics and Automation Letters (**RA-L**)
- IEEE Transactions on Automation Science and Engineering (**TASE**)
- IEEE Transactions on Instrumentation and Measurement (**TIM**)

Teaching Assistant

- 2023 **EEE5058: Foundation of Information Technology**, SUSTech.
 - Robotic Motion Planning