# **ZHENYU WEI**

#### **EDUCATION**

### Shanghai Jiao Tong University (SJTU), China

Sep. 2021 - Jun. 2025 (expected)

B.E. in Computer Science (Zhiyuan Honors Program of Engineering)

**GPA:** 4.0/4.3 (92.1/100)

#### **PUBLICATIONS**

- 1. Jingxiang Guo\*, Jiayu Luo\*, **Zhenyu Wei**\*, Yiwen Hou, Zhixuan Xu, Xiaoyi Lin, Chongkai Gao, Lin Shao, "TelePreview: A User-Friendly Teleoperation System with Virtual Arm Assistance for Enhanced Effectiveness". Under Review. [Web]
- 2. Haonan Chen\*, Junxiao Li\*, Ruihai Wu, Yiwei Liu, Yiwen Hou, Zhixuan Xu, Jingxiang Guo, Chongkai Gao, **Zhenyu Wei**, Shensi Xu, Jiaqi Huang, Lin Shao, "MetaFold: Language-Guided Cross-Category Garment Folding Framework via Trajectory Generation and Foundation Model". Under Review. [Web]
- 3. Zhenyu Wei\*, Zhixuan Xu\*, Jingxiang Guo, Yiwen Hou, Chongkai Gao, Zhehao Cai, Jiayu Luo, Lin Shao, " $\mathcal{D}(\mathcal{R}, O)$  Grasp: A Unified Representation for Cross-Embodiment Dexterous Grasping". Accepted to ICRA 2025; CoRL 2024 @ MAPoDeL, Best Robotics Paper Award & Oral Presentation; CoRL 2024 @ LFDM, Spotlight Presentation. [Web]
- 4. Bo Pang, **Zhenyu Wei**, Jingli Lin, Cewu Lu, "Auto-Pairing Positives through Implicit Relation Circulation for Discriminative Self-Learning". Accepted to **TPAMI**.

#### RESEARCH EXPERIENCE

# Research Intern, Machine Vision and Intelligence Group

Oct. 2022 - May 2024

Advisor: Prof. Cewu Lu

Shanghai Jiao Tong University, China

• We propose the Implicit Relation Circulation (IRC) framework for self-supervised learning, which leverages cycle consistency to automatically discover dense positive pairs from existing relations within simpler tasks. This approach enables effective representation learning across images, point clouds, and multi-modal data.

#### Research Assistant, LinS Lab

Jun. 2024 - Fer. 2025

Advisor: Prof. Lin Shao
• Focused on **dexterous grasping** for cross-embodiment:

National University of Singapore, Singapore

- $\circ$  We propose a novel interaction-centric representation,  $\mathcal{D}(\mathcal{R}, O)$ , combined with a configuration-invariant pretraining approach that learns correspondences across different robot configurations, enhancing grasping quality, efficiency, and generalizability across diverse robots, objects, and environments.
- Focused on **robot teleoperation**:
  - We propose a low-cost teleoperation system utilizing data gloves and IMU sensors, paired with an assistant module that improves the data collection process by visualizing future robot operations through previews.

#### AWARDS

• Best Robotics Paper Award, CoRL 2024 @ MAPoDeL	2024
<ul> <li>Outstanding Scholarship of Computer Science Alumni Fund (Top 5%)</li> </ul>	2024
Huawei Scholarship (Top 5%)	2023
• The Tung Foundation Scholarship (Top 5%)	2022
• Zhiyuan Honors Scholarship (Top 5%)	2021 - 2024
Merit Student & Merit Scholarship of Shanghai Jiao Tong University (Top 10%)	2022 - 2024

## MISCELLANEOUS

Language	Chinese (Native), English (TOEFL: 104), Japanese (amateur)
Programming	Python, C/C++, HTML, CSS, Assembly Language, Verilog

Academic Service Reviewer for ICRA 2025, IROS 2025