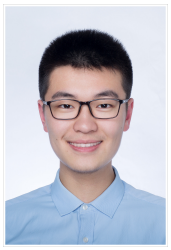
Li Yutong

@MVIG - RobotFlow

18268122006 (phone)
800 Dongchuan Road, Minhang District (address) davidliyutong@sjtu.edu.cn (email)
200240 (zip code) GitHub/davidliyutong (GitHub)



Research Interests: **sensor systems / robot learning / computer vision / simulation**

Education

- **Shanghai Jiao Tong University** Information Engineering, Master 2021.09 – 2024.03
  - Under the supervision of Prof. Cewu Lu and guidance of Dr. Wenqiang Xu.
  - GPA: 3.76/4.0
- **Shanghai Jiao Tong University** French & Information Engineering, Bachelor 2017.09 – 2021.06

Papers

Li, Yutong*, Xue, H.*, Xu, W., Zheng, D., & Lu, C. (2023). UniFolding: Towards Sample-efficient, Scalable, and Generalizable Robotic Garment Folding. **In 7th Annual Conference on Robot Learning (CoRL)**. *(To Present in WAIC24)* Robot Learning

Li, Yutong*, Luo, C.*, Xu, W., & Lu,C. (In Submission) Towards Repeatable Evaluation of Robotic Manipulation in the Real World. Robot Learning

Yu, Z., Xu, W., Ren, J., Tang, T., **Li, Yutong**, ... & Lu, C. (2023). Precise Robotic Needle-Threading with Tactile Perception and Reinforcement Learning. **In 7th Annual Conference on Robot Learning (CoRL)**. Robot Learning

Li, Yutong*, Xu, W.*, Zhang, J.*, , Tang, T.,& Lu, C. (In Submission) SFGlove: An Inertial-Based Full-DoF Hand Tracking System with Shape-Aware Calibration Sensor Systems

Jiang, C., Xu, W., **Li, Yutong**, Yu, Z., Wang, L., ... & Liu, J. (In Rebuttal). Capturing forceful interaction with arbitrary objects using a deep learning-powered stretchable tactile array. **Nature Communications**. Sensor Systems

Xu, W.*, Du, W.*, Xue, H., **Li, Yutong**, ... & Lu, C. (2023). Clothpose: A real-world benchmark for visual analysis of garment pose via an indirect recording solution. **In Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)**. *(Oral)* Computer Vision

Xue, H., Xu, W., Zhang, J., Tang, T., **Li, Yutong**, ... & Lu, C. (2023). GarmentTracking: Category-Level Garment Pose Tracking. **In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)** Computer Vision

Fu, H., Xu, W., Ye, R., Xue, H., Yu, Z., Tang, T., **Li, Yutong**, ... & Lu, C. (2023). Demonstrating RFUniverse: A Multiphysics Simulation Platform for Embodied AI. **In Proceedings of Robotics: Science and Systems (RSS)**. Simulation

Xu, W.*, Zhang, J.*, Tang, T., Yu, Z., **Li, Yutong**, & Lu, C. (In Submission). DiPGrasp: Parallel Local Searching for Efficient Differentiable Grasp Planning. Simulation

Xu, W.*, Zheng, D.*, **Li, Yutong**, Ren, J., & Lu, C. (In Submission). Differentiable Fluid Physics Parameter Identification Via Stirring. Simulation

Projects

❖ **Unifolding** 🔗
  - A sample-efficient, scalable, and generalizable robotic system for unfolding and folding various garments.
  - **Keywords: PyTorch, Imitation Learning, VR, 3D Vision, FlexivRDK, Simulation**

❖ **MarkIt** 🔗
  - A motion capture system composed of inertial measurement units and ESP32 micro controller. This system can collect pose estimation of articulated objects and human.
  - **Keywords: ESP32, FreeRTOS, STM32, gRPC, C, Golang**

Experience

❖ **Flexiv Shanghai** Intern R&D 2023.06 – 2023.12
  - Developed a dual-arm cooperative robot system for garment manipulation.

❖ **ParisTech Elite Institute of Technology, Shanghai Jiao Tong University** TA 2021.06 – 2023.06
  - Serving as a teaching assistant for C programming and data structure courses
  - Shanghai Jiao Tong University Excellent Teaching Assistant Award (2022.07)

Skills and Expertise

❉ **Programming Languages**: Python, Golang, C++, Javascript, CUDA, Matlab
❉ **Engineering**: HPC/Kubernetes Cluster Maintenance, 3D Print Design, Soldering, Video Editing
❉ **Natural Languages**: English (TOEFL 105, CET-6 599), French (DELF B2)

Awards

- **Shanghai Outstanding Graduate** Top 3% 2024.03
- **Baosteel Scholarship** 2023.10
- **Shanghai Jiao Tong University Outstanding Graduate** 2021.06