Ying Yuan

HomePage | ✈ yingyuan2002@gmail.com | 📞 (+86)139-1701-4230 | ⊙ Github

EDUCATION

Tsinghua University, China   Sept 2020 - Now
BEng Computer Science and Technology, Institute for Interdisciplinary Information Sciences (Yao Class)
GPA: 3.95/4.00, Ranking: 5/76

INTERNSHIPS

Reinforcement Learning for Dexterous Manipulation   Feb 2023 - Aug 2023
Research Intern; Advisor: Xiaolong Wang, Assistant Professor, ECE Department, UC San Diego   San Diego, United States

- Proposed Robot Synesthesia, a novel point cloud-based tactile representation inspired by human tactile-visual synesthesia.
- Built a system for in-hand dexterous manipulation utilizing visuotactile sensing to solve complex tasks in the real world such as double-ball rotation and generalize to novel objects.

Generalization and Adaptive Robotics System   Jun 2022 - Mar 2023
Research Assistant; Advisor: Yi Wu, Assistant Professor, IIIS, Tsinghua University   Beijing, China

- Built block stacking and Franka kitchen environments with a Franka Panda arm based on PyBullet.
- Designed the Phasic Self-Expansion algorithm to tackle a long-horizon sparse-reward robotic manipulation problem, where the agent searches for more challenging goals automatically based on current successful trajectories.

PUBLICATIONS

Robot Synesthesia: In-Hand Manipulation with Visuotactile Sensing.   2024
Ying Yuan*, Haichuan Che*, Yuzhe Qin*, Binghao Huang, Zhao-Heng Yin, Kang-Won Lee, Yi Wu,
Soo-Chul Lim, Xiaolong Wang.
Submitted to ICRA 2024

Robot Generating Data for Learning Generalizable Visual Robotic Manipulation.   2024
Yunfei Li*, **Ying Yuan***, Wei Fu, Jiaxuan Gao, Zekai Xu, Yi Wu.
Submitted to AAAI 2024

Robot Synesthesia: In-Hand Manipulation with Visuotactile Sensing.   2023
Ying Yuan*, Haichuan Che*, Yuzhe Qin*, Binghao Huang, Zhao-Heng Yin, Kang-Won Lee, Yi Wu,
Soo-Chul Lim, Xiaolong Wang.
NeurIPS 2023 Workshop WTP   Poster

Self-Generating Data for Goal-Conditioned Compositional Problems.   2023
Ying Yuan, Yunfei Li, Yi Wu.
ICLR 2023 Workshop RRL   Poster

HONORS AND AWARDS

Yao Award (Recognition Prize)   2023
School-level Scholarship   2021-2023

TECHNICAL SKILLS

Languages:	English (Fluent, TOEFL 116, GRE 331+4.0); Chinese (Native)
Programming languages:	Python, C++, MATLAB, Verilog
Libraries and tools:	Pytorch, TensorFlow, Git, LaTeX, Kubernetes, CUDA, Docker

RELEVANT COURSEWORK

Computer Science:	Data Structures in the Real World (A+), Deep Learning (A+), Natural Language Processing (A+), Theory of Computation (A), Machine learning (A), Computer Vision (A), Intelligent Systems and Robotics (A)
Mathematics & Physics:	Calculus (A), Linear Algebra (A-), Abstract Algebra (A-), General Physics (A), The Physics of Information (A)