

# Ruihan Yang

杨睿涵

ruihanyang97@gmail.com/ruihanyang97@ucsd.edu

<http://RchalYang.github.io>

## EDUCATION

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- **UC San Diego** San Diego, CA  
Ph.D in Machine Learning Sep. 2021 - Present
- **UC San Diego** San Diego, CA  
M.S in Computer Science Sep. 2019 - Mar. 2021
- **Nankai University** Tianjin, China  
B.E in Software Engineering Sep. 2015 - Jul. 2019

## PUBLICATIONS

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- *Learning Vision-Guided Quadrupedal Locomotion  
End-to-End with Cross-Modal Transformers*  
Ruihan Yang\*, Minghao Zhang\*, Nicklas Hansen, Huazhe Xu, Xiaolong Wang **ICLR 2022(Spotlight)**
- *Multi-Task Reinforcement Learning with Soft Modularization*  
Ruihan Yang, Huazhe Xu, Yi Wu, Xiaolong Wang **NeurIPS 2020**
- *Vision-Guided Quadrupedal Locomotion in the Wild  
with Multi-Modal Delay Randomization*  
Chieko Sarah Imai\*, Minghao Zhang\*, Yuchen Zhang\*, Marcin Kierebiński,  
Ruihan Yang, Yuzhe Qin, Xiaolong Wang **IROS 2022**
- *DexMV: Imitation Learning for Dexterous Manipulation  
from Human Videos*  
Yuzhe Qin\*, Yueh-Hua Wu\*, Shaowei Liu\*, Hanwen Jiang\*,  
Ruihan Yang, Yang Fu, Xiaolong Wang **ECCV 2022**
- *Suphx: Mastering Mahjong with Deep Reinforcement Learning*  
Junjie Li, Sotetsu Koyamada, Qiwei Ye, Guoqing Liu, Chao Wang,  
Ruihan Yang, Li Zhao, Tao Qin, Tie-Yan Liu, Hsiao-Wuen Hon

## INDUSTRIAL EXPERIENCE

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- **Adobe Research** San Jose, CA(Remote)  
Research Intern. Work with Dr. Ruben Villegas, Dr. Duygu Ceylan  
Jun. 2021 - Dec. 2021
  - Work on Motion Style Transfer
- **Microsoft Research Asia** Beijing, China  
Research Intern at Machine Learning Group. Work with Qiwei Ye, Dr. Tao Qin  
Mar. 2018 - Jun. 2019
  - Built AI for Mahjong (One of the hardest imperfect-information game, **most popular board game in East Asia**, well matched to the **top professional human player**)

## PROFESSIONAL SERVICE

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Conference Reviewer AAAI 2021 / ICRA 2022 / ECCV 2022  
Journal RA-L

## TEACHING EXPERIENCE

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- **Math 155A: 3D Computer Graphics** Fall. 2020  
Teaching Assistant
- **ECE 176: Introduction to Deep Learning and Applications** Winter. 2021  
Teaching Assistant

## HONORS & AWARDS

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- First Class Scholarship for Nankai University Undergraduate (Top 5% ) *Dec. 2016, Dec. 2017*
- Public Dedication and All-round Capability Scholarship(15/96), Nankai University *Oct. 2018*

## SELECTED PROJECTS

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- **TorchRL** *Dec. 2018 - Present*
  - Personal implementation of various RL algorithms
    - Implemented various RL methods: off-policy and on-policy methods.
    - Earned over 100 stars on github.
- **AI for Prosthetics** *Jul. 2018 - Nov.2018*
  - NIPS 2018: AI for Prosthetics Challenge
    - Developed a controller to enable a physiologically-based human model with a prosthetic leg to walk and run.
    - Trained robotic controller using Proximal Policy Optimization(PPO), with symmetric loss / observation engineering / reward shaping / model using residual blocks. / dense goal-conditioned model
    - Ensembled multiple actors to cope with different circumstances
    - **Rank: 9th** (round1), **10th** (round2) & **Average Reward: 9800+**/10000

## SKILLS & INTERESTS

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**Programming Languages** C++/Python/C/Java/Bash/Latex/SQL  
**Techniques** Git/OpenMP/SIMD/MPI/CUDA/Docker/Pybind/Pytorch/Tensorflow