**Ruihan Yang**
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## Education

- **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

- *Neural Volumetric Memory for Legged Locomotion Control*
  **Ruihan Yang**, Ge Yang, Xiaolong Wang — **CVPR 2023 (Highlight)**
- *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

- **Allen Institute for AI (AI2)** — Seattle, WA
  Research Intern @ PRIOR — *Jun. 2023 - Sep 2023*
  - Work on Emboddied AI
- **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

**Conference Reviewer** — ECCV 2022 / CVPR 2023 / ICCV 2023 / NeurIPS 2023
AAAI 2021,2023 / ICRA 2022,2023 / IROS 2023

**Journal Reviewer** — RA-L

## Teaching Experience

- **Math 155A: 3D Computer Graphics** *Fall. 2020*
  Teaching Assistant
- **ECE 176: Introduction to Deep Learning and Applications** *Winter. 2021 / Winter. 2023*
  Teaching Assistant

## Honors & Awards

- 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

- **TorchRL** *Dec. 2018 - Present*
  Personal implementation of various RL algorithms
  - Implemented various RL methods: off-policy and on-policy methods.
  - Earned over 150 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

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