Jianglan Wei

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Academic Background

- **University of California, Berkeley** *2024.08 - 2025.08*
  Research Intern and Visiting Student Berkeley, United States
  - **Advisor:** Prof. Masayoshi Tomizuka (Member of NAE)
  - **GPA:** 4.00/4.00
- **Huazhong University of Science and Technology** *2022.09 - 2026.06 (expected)*
  BEng in Artificial Intelligence Wuhan, China
  - **Research Advisor:** Prof. Zhigang Zeng
  - **Major GPA:** 91.23/100.00

Publications

- **Reimagination with Test-time Observation Interventions** Paper
  Yuxin Chen*, **Jianglan Wei***, Chenfeng Xu, Boyi Li, Masayoshi Tomizuka, Andrea Bajcsy, Thomas Tian
  Best Paper Finalist *at RSS Out-of-Distribution Generalization Workshop, 2025*
  - Propose a test-time strategy that enables world models to predict more reliable action outcomes in open-world scenarios where unanticipated visual distractors are inevitable.
  - ReOI improves task success rate by up to 3x in the presence of noval distractors, significantly outperforms action verification that relies on world model predictions without imagination interventions.
- **MEReQ: Max-Ent Residual-Q Inverse RL for Sample-Efficient Alignment from Intervention** Paper
  Yuxin Chen*, Chen Tang*, **Jianglan Wei**, Chenran Li, Thomas Tian, Xiang Zhang, Wei Zhan, Peter Stone, Masayoshi Tomizuka
  Conference on Robot Learning (CoRL), 2025
  - Propose an interactive imitation learning algorithm where human expert observes the policy's execution and provides interventions for the policy to imitate.
  - Instead of inferring the complete human behavior characteristics, MEReQ infers a residual reward function that captures the discrepancy between the human expert and prior policy's underlying reward functions. This makes MEReQ more sample-efficient compared to baselines.
- **Interleave-VLA: Enhancing Robot Manipulation with Image-Text Interleaved Instructions** Paper
  Cunxin Fan*, Xiaosong Jia*, **Jianglan Wei**, et al.
  Oral & Spotlight *at ICRA Vision-Language Foundation Models in Robotics Workshop, 2025*
  - Propose a framework capable of comprehending image-text interleaved instructions and directly generating continuous action sequences in the physical world.
  - Interleave-VLA improves out-of-domain generalization to unseen objects by 2-3x compared to SOTA baselines.
- **HDC-X: Efficient Medical Data Classification for Embedded Devices** Paper
  Jianglan Wei*, Zhenyu Zhang*, Pengcheng Wang, Mingjie Zeng, Zhigang Zeng
  Under Review as a Conference Paper
  - Propose an energy-efficient medical data classifier capable of embedded deployment.
  - HDC-X is 350× more energy efficient than deep learning baseline while achieving similar accuracy, and demonstrates exceptional robustness to noise, limited training data, and hardware error.
- **CodeAvatar: Learning Animatable Occlusion-Aware 3D Avatars in the Wild** Paper
  Qinzheng Zhou, Hao Wang, **Jianglan Wei**, Lijing Lu, Zhihang Li
  Under Review as a Conference Paper
  - Propose a framework that creates 3D human avatars from occluded monocular videos.
- **DSN: Energy-Efficient EMG Signal Classification** Paper
  Zhenyu Zhang, Xianzhe Meng, **Jianglan Wei**, Mingjie Zeng, Zhigang Zeng
  Under Review as a Journal Paper
  - Propose a framework that combines SNN and HDC for sEMG signal classification.

Honors and Awards

- **Student Speaker for Berkeley Global Access Closing Ceremony** *2025.05*
  University of California, Berkeley
- **UC Berkeley BGA Scholarship 2024 (Top 10 Students)** *2024.12*
  University of California, Berkeley
- **National 1st Prize, CUMCM 2024 (Top 0.5% out of 59278 teams)** *2024.11*
  China Society for Industrial and Applied Mathematics (CSIAM)
- **Scholarship for Merit Student 2022, 2023, 2025** *2022.10, 2023.10, 2025.10*
  Huazhong University of Science and Technology