

Yuyan Wang

+1 434-320-6409 ◇ yuyanwang2026@gmail.com ◇ Homepage ◇ LinkedIn

RESEARCH INTEREST

I am deeply interested in model deployment, decision learning, and human-robot collaboration within the field of **Embodied Intelligence**, focusing on how to enable intelligent agents to perform long-term planning and possess perception-reasoning-action capabilities in real physical environments. My research focuses on combining **VLA Models** and **World Models** with whole-body robot control to construct embodied systems.

EDUCATION

University of Pennsylvania MSE Computer and Information Science	2026.08 - 2028.05
University of Virginia B.A. Computer Science and Statistics (GPA: 3.97/4.0)	2022.08 - 2026.05

PUBLICATION

ICML 2026 Xuhui Kang, Sung-Wook Lee, Haolin Liu, Yuyan Wang , Yen-Ling Kuo <i>Moving Out: Physically-Grounded Human-AI Collaboration</i>	2025.07
ICRA 2026 Timur Anvar, Jeffrey Chen, Yuyan Wang , Rohan Chandra <i>Are LLMs The Way Forward? A Case Study on LLM-Guided RL for Decentralized Autonomous Driving</i>	2025.11

INTERNSHIP

Humanoid Robot Algorithm R&D Intern BXI Robotics	2026.06 - present
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- Obtain joint retargeting data for the Elf3 Humanoid Robot, train and deploy the SONIC WBC model, and achieve wholebody teleoperation and model inference for Pico VR.
- Evaluate GR00T, Pi, and LingBot-VLA, develop ELF3's task execution capabilities, and build a GR00T and SONIC control framework on ELF3.
- Conducts robot data generation research based on DreamGen, using a world model to synthesize robot task video, providing high-quality data support for improving VLA post-training and generalization capabilities.

PROJECT

NASA Lunabotics Challenge <i>UVA Mechatronics and Robotics Society CS Subteam Member</i>	2023.08 - 2026.05
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- Achieved 1st place (Off World Grand Prize) out of over 60 universities in 2026 NASA Lunabotics Challenge.
- Use ROS2 Nav2 to explore SLAM-based localization and path planning methods, focusing on how to avoid obstacles such as craters to achieve autonomous movement of the robot on the lunar surface.
- Design action sequences by utilizing sensors and AprilTag for automated digging and dumping tasks.
- Establish a data transmission network between the control center (Linux) and the robot (NVIDIA Jetson).

Moving Out: Physically-Grounded Human-AI Collaboration <i>Supervisor: Yen-Ling Kuo Research Assistant</i>	2025.01 - 2026.01
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- Goal:** Enhance agents' ability to collaborate with diverse human behaviors in env with physical constraints.
- Train embodied agents using RL in the new collaborative benchmark environment, Moving Out.
- Collect and clean collaborative trajectory data, and train a Latent Dynamics Model based on this data: VAE for state encoding and decoding and MLP to learn the state transition function to predict future states.

Improvement and Optimization of Franka Robotic Arm Teleoperation <i>Supervisor: Yen-Ling Kuo Research Assistant</i>	2024.01 - 2025.04
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- Implemented teleoperation of the Franka robot arm using a Meta Quest VR controller and space mouse for diverse manipulation tasks in both physical and Gazebo simulated environments through ROS2.
- This teleoperation setup now supports 4-6 ongoing projects in the lab across multiple research directions.