

Jerry (Yue) Wu

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Education

- University of Southern California**, BS in Electrical and Computer Engineering, Sept 2022 – May 2026
Minor in Cinematic Arts (Expected)
- GPA: 3.87/4.0, Major GPA:3.97/4.0
 - **Honors:** MHI Scholar, Academic Achievement Award, CURVE Research Program, Dean's List, Thematic Option Honor Program
 - **Undergraduate Honor Thesis** Time series data analysis through machine learning

Experience

- Research Assistant**, Robot Locomotion and Navigation Dynamics Lab (RoboLAND) May 2024 – Present
– Los Angeles, CA
- Used **Fusion 360** and **Arduino boards** to build: sand-proof quadrupedal robots (**ROS2**), gantry system, multi-agent robot system
 - Assisted and designed empirical experiments to explore robot locomotion pattern
 - Analyzed **dynamics** and **force vector field** of the robot locomotion in challenging terrains
 - Manually collected and analyzed over 500 trials of robot locomotion and manipulation in **real-world sand environment**
 - Simulated robot locomotion in physics engine **Webots**
 - Coded and trained preliminary diffusion policy model using **PyTorch**.
- Summer Research Intern**, Embodied AGI Lab – Amherst, MA July 2025 – Aug 2025
- Trained **Unitree G1** Humanoid Robot through RL policy in **IssacGym**
 - Sim2Sim and Sim2Real deployment on G1
 - Coded **real-time retargeting** scripts from human motion data to SMPL
- Electronics Team**, USC Racing – Los Angeles, CA Sep 2022 – May 2024
- Assisted the installation of **Engine Control Unit** and performed tuning
 - Assisted the wiring of the racing car from scratch and installed a **Hall-effect sensor** to detect the rotary speed of wheels
- EE 202 Linear Circuit Course Producer**, USC Department of Electrical and Computer Engineering – Los Angeles, CA Sep 2024 – Dec 2024
- Assisted students with in-class lab projects, providing guidance on experiments
 - Hosted weekly office hours to support students by answering questions on course material

Publications

- Granular loco-manipulation: Repositioning rocks through strategic sand avalanche** Conference on Robot Learning (CoRL) 2025 [Project Website] 2025
- Haodi Hu, **Yue Wu**, Daniel Seita† Feifei Qian†

Technical Skills

Languages: Python, MATLAB, C, C++, HTML/CSS, \LaTeX

Technologies: Linux, ROS, PyTorch, TensorFlow, Fusion360, Solidworks, Embedded System Development, Simulink, IssacGym, Genesis, Mujoco, OptiTrack

Developer Tools: VS Code, Anaconda, Docker

Office Tools: Microsoft Office, Google Doc, Final Cut Pro, Adobe Illustrator, Adobe Photoshop, Adobe premiere

Projects

Inverted Cart

Feb 2025 - May 2025

- Used modern controller **Extended Kalman Filter LQG** to control a self-balanced cart

Auto Detection for Bicycle Accidents

Nov 2024 - Dec 2024

- Designed a **multi-sensory IoT system** for a bicycle capable of predicting and detecting accidents that reduced false positives by 20%, triggering an alarm when necessary

AI Math Tutor

Sep 2023 - May 2024

- Coded a AI math tutor for high school students by leveraging the **ChatGPT API**

Electric Guitar

March 2024 - May 2024

- Built an electric guitar by designing a **band-pass filter** and performing **woodwork**

Miscellaneous

ICRA 2025 Workshop

RSS 2025 Volunteer

South LA Robotics Volunteer