Youhui (Jeffrey) Wang

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EDUCATION

Cornell University (GPA: 3.9/4.0) **Ithaca, NY**
B.S. in Information Science (Major), Robotics (Minor), and *Artificial Intelligence (Minor)* Expected May 2027
- Relevant Coursework: Machine Learning, Deep Learning, AI Planning & Learning, Computer Science (Python, Java, Julia, R, MATLAB), Networks, Web Design, Discrete Mathematics, Statistics, Differential Equations, Linear Algebra, Multivariable Calculus
- Teaching Experience: CS 1340 Teaching Assistant; CHEM 2070, CS 1112, MATH 1910, MATH 1920 Student Assistant

Harvard University & Massachusetts Institute of Technology (M.I.T.)(GPA: 4.0/4.0) **Cambridge, MA**
Visiting Undergraduate Scholar August 2025 – May 2026
- Relevant Coursework: Robotic Manipulation (M.I.T.), Planning and Learning Methods in AI, Startups

Coursera Certificates **Online**
- "Deep Learning" Specialization (Stanford & DeepLearning.AI) December 2023
- "Machine Learning" Specialization (Stanford & DeepLearning.AI) September 2023

WORK EXPERIENCE

CogAI Lab at Stanford Vision and Learning Lab (SVL) **Stanford, CA**
Research Advisors: Raven Huang, Jiajun Wu (PI), Fei-fei Li (PI) November 2025 – Now
- Developing Sim2RealGen, a video-based sim-to-real learning framework that enables robots to imagine and evaluate task-relevant scene variations offline via generated RGB–depth videos, improving real-world manipulation without physical trial-and-error.

AIR-DREAM Lab at the Institute for AI Industry Research (AIR) at Tsinghua University **Beijing, China**
Research Intern; Research Advisors: Peng Cheng, Xianyuan Zhan (PI) May 2025 – August 2025
- Developed an offline RL model combining FISOR (Feasibility-guided Safe Offline RL) and TELS (T-symmetry Enforced Latent State-Stitching) frameworks to enhance safe learning and optimize national data center cooling under limited, low-quality data using PyTorch.

RESEARCH EXPERIENCE

Harvard Microrobotics Lab **Cambridge, MA**
Research Advisors: Elio Challita, Robert Wood (PI) November 2025 – Now
- Designed and controlled a bio-inspired aerial microrobot using ROS-based control pipelines, implementing feedback and state-estimation modules to maintain stable flight under strong upward airflow and dynamic aerodynamic disturbances.

Harvard Edge Computing Lab **Cambridge, MA**
Research Advisors: Jason Jabbour, Vijay Reddi (PI) August 2025 – Now
- Developed GLUSTICK, a post-pruning recovery method for VLA models that restores robotic safety and performance without retraining by combining model compression, SVD-based correction, and efficient deployment on edge hardware
- Publication: *"Don't Run with Scissors: Pruning Breaks VLA Models but They Can Be Recovered", ICML 2026* (under review)

Organic Robotics Laboratory **Ithaca, NY**
Research Advisors: Ofek Peretz, Robert Shepherd (PI) September 2024 – September 2025
- Built energy-aware control strategies for a bio-inspired robotic fish, integrating an origami wave-energy harvester with closed-loop locomotion control to extend mission duration by 70%+, earning the U.S. Department of Energy's In DEEP Prize

Reid's Research Laboratory **Ithaca, NY**
Research Advisor: Matthew Reid (PI) September 2024 – September 2025
- Built a Markovian decision-making control framework for stormwater bioreactors, modeling system dynamics as state transitions and leveraging real-time redox observations to optimize nutrient removal performance over 30 days

Charles' Research Group **Ithaca, NY**
Research Advisor: Michael Charles (PI) August 2023 – September 2025
- Applied AI-driven network modeling in Python/Julia to simulate 50 ecological and engineered systems, using representation learning–inspired dimensionality reduction (PCA) and objective analysis to optimize system performance and design

TECHNICAL EXPERIENCE

Engineers Without Borders (EWB) Cornell Project Team **Ithaca, NY**
Team Advisor: Peter Hess September 2024 – September 2025
- Built a drone–rover sensing system with GPS and NDVI cameras, deploying computer vision and lightweight ML pipelines on edge hardware with cloud coordination for large-scale crop disease detection and open-source collaboration

Cornell Makers Club **Ithaca, NY**
Member (Robotics Subteam) September 2024 – September 2025
- Developed and programmed a soft robotic exoskeleton enabling learning based compliant manipulation and adaptive grasping

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Engineering Student Organization **Ithaca, NY**
Executive Board Member August 2024 – September 2025
- Organized 10+ engineering campus events, including resume workshops and research panels of 20+ faculty and 100+ student attendees

SKILLS & INTERESTS

- **Languages**: Mandarin (native), English (work proficiency)
- **Technical skills**: Proficient in Python, PyTorch, C/C++, PyDrake, SQL, Java, Julia, MATLAB, R, SolidWorks, ML, Data Analysis
- **Interests**: Researching, Programming, Robotics, Basketball, Tennis, Squash, Skating, Ice Hockey, Swimming, Traveling