Mingyang Yu

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EDUCATION

CARNEGIE MELLON UNIVERSITY **Pittsburgh, PA**

Master of Science in Mechanical Engineering - Research August 2024 - Present

- GPA: 3.98/4.00
- Relevant coursework: Machine Learning, Deep Learning, Robot Learning, Computer Vision

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN **Champaign, IL**

Bachelor of Science in Mechanical Engineering June 2024

- GPA: 3.83/4.00
- Relevant coursework: Fluid Dynamics, Statics, Dynamics, Solid Mechanics, Engineering Material, Thermodynamics, Mechanical Design, Computer-Aided Design, Manufacturing, Signal Processing, Introduction to Robotics, Robot Dynamics and Control

PUBLICATIONS

1. Yaru Niu*, Yunzhe Zhang*, **Mingyang Yu**, Changyi Lin, Chenhao Li, Yikai Wang, Yuxiang Yang, Wenhao Yu, Tingnan Zhang, Zhenzhen Li, Jonathan Francis, Bingqing Chen, Jie Tan, Ding Zhao. Human2LocoMan: Learning Versatile Quadrupedal Manipulation with Human Pre-Training. *Robotics: Science and Systems (RSS),* 2025.
2. Changyi Lin, Yuxin Ray Song, Boda Huo, **Mingyang Yu,** Yikai Wang, Shiqi Liu, Yuxiang Yang, Wenhao Yu, Tingnan Zhang, Jie Tan, Yiyue Luo, and Ding Zhao. LocoTouch: Learning Dexterous Quadrupedal Transport with Tactile Sensing. *Conference on Robot Learning (CoRL),* 2025.

RESEARCH EXPERIENCE

SAFE-AI LAB (WITH PROF. DING ZHAO) **Pittsburgh, PA**

Graduate Research – Human2LocoMan, LocoTouch August 2024 – Present

- Designed camera mount for Apple Vision Pro and bimanual quadrupedal robot
- Implemented real-time teleoperation from *"Bunny Vision Pro"* by changing the python code for single robot arm and developed code to control the gripper
- Fabricated tactile sensor for quadrupedal robot and improved sensor data collection and quadrupedal motion

KIMLAB (WITH PROF. JOOHYOUNG KIM) **Champaign, IL**

Independent Study – Lip-pouch Surface Design for Passive Jamming Robot Gripper August 2023 – June 2024

- Designed and built gripper lips and teeth using a vacuum former and impulse sealer
- Developed a friction setup to assess gripper performance with different pouch shapes
- Fabricated robotic fingers, utilizing inverse kinematic method to control the fingertip position

WORK EXPERIENCE

STEALTH ROBOTICS STARTUP **Palo Alto, CA**

Robotics Engineer (Intern) May 2025 – July 2025

- Learned to create numerous terrains and assets in Isaac Sim and train Unitree G1 humanoid with off-the-shelf policy
- Integrated LLM into the code base and let it change the URDF file (size, color) in space based on users' prompt

- Built up environment in GCP (Google Cloud Platform) for Isaac Sim for headless training and streamed it using WebRTC client

NIKKISO CRYOGENIC INDUSTRIES SERVICE COMPANIES (UNITED STATES) **Irvine, CA**

Pump Technician (Intern) May 2022 – July 2022

- Assembled reciprocating pumps individually (SGV High Pressure Humps, P2K Vertical Pumps)
- Acquired insights into blueprints, assembly steps for reciprocating pumps and centrifugal pumps, and shipping and receiving processes in manufacturing industries
- Utilized basic functions of CNC lathe machine and dynamic balance machine (rotor balancing)

NIKKISO CRYOGENIC INDUSTRIES SERVICE COMPANIES (CHINA) **Hangzhou, China**

CAD Engineer for Pump (Intern) June 2021– August 2021

- Learned the basic use of SolidWorks, laser positioning, and conversion of blueprints into CAD models
- Used SolidWorks to model flanges, screw holes, and tubes and assemble parts like pistons and cylinders

EXTRACURRICULAR EXPERIENCE

SCHOOL PROJECTS (Robot Arm, Walking Machine, Indoor Glider, and Transmission Gear Box) **Champaign, IL**

Student (Group Design)

- Programmed robot arm to achieve series of tasks including stick insert, obstacle avoidance. The technics used here included task space PD control, impedance control, frame rotation, feedforward force control, forward and inverse kinematics.
- Designed a walking machine using Fusion 360 and 3D printing
- Designed a transmission gear box with forward gear, backward gear, and neutral using the knowledge of gear ratio, planetary gear set, shaft torque analysis.

ON-CAMPUS JOB **Champaign, IL**

Course Assistant for TAM210 (Introduction to Statics) August 2023 – December 2023

- Attended class discussion sessions, helped students with the weekly worksheet and held office hours

Grader for ME200 (Thermodynamics) August 2022 – December 2022

- Graded weekly assignments and two exams for ME200 Section 1 (around 130 students)

PERSONAL PROJECT **Pittsburgh, PA**

Building a Robot Arm August 2024 – Present

- Using SolidWorks to design the robot arm and assembling it with servo motors and control board
- Implementing control and dynamics move the robot arm
- Developing robot vision using a web cam for the robot arm to locate objects

SKILLS & AWARDS

- **Languages**: Chinese (native), English(fluent)
- **Technical skills**: Python, Isaac Sim, Isaac Lab, MATLAB, SolidWorks, Fusion 360, Microsoft Office, LabVIEW, ROS
- **Awards**: *Dean's List (Academic performance for the semester in the top 20% of The Grainger College of Engineering):* 2021, 2022 Spring, 2023 Fall