

Leo Wang

Email: leokingw@andrew.cmu.edu | **Cell:** (860) 960-9539 | **Portfolio:** leo01110111.github.io/projects

EDUCATION

Carnegie Mellon University | Pittsburgh, PA

B.S. Electrical and Computer Engineering | May 2028

QPA: 3.9/4.0

NOTABLE PROJECTS

Quadrupedal Climbing Policy via Deep Reinforcement Learning | May 2025 - Present

- Achieved a policy that climbs hills of 45 degrees
- Developed the training environment in Isaac Lab
- Analyzed training runs and tuned environmental parameters to achieve better performance
- Sim2Real on the Unitree Go2 robot

Robotic Arm | Personal Project | July 2024–Present (intermittent)

- Wrote a differential IK controller with only the Eigen library in C++
- Used ROS 2 for communication of joint states/commands.
- Designed and built a 6-degree-of-freedom robotic arm from scratch
- Simulated the custom robotic arm in Isaac Sim.

Other

- Wrote a proximal policy optimization algorithm from scratch to deeply understand the theory.
- Made a multi-layer perceptron with forward and backpropagation using only numpy

WORK EXPERIENCE

Robomechanics Lab | Researcher | Carnegie Mellon University | May 2025 - Dec 2025

- Taught a bootcamp on using the Pittsburgh Supercomputing Center's GPUs for Isaac Lab training.
- Wrote batch scripts for training models on compute clusters
- Authored how-to guides on using the compute clusters and deploying policies to the Go2 robot
- Made a program that controls the Unitree Go2 robots in MuJoCo with a keyboard

SKILLS

Software: Isaac Lab, Isaac Sim, PyTorch, ROS 2, Python, C++, C, Bash, Git

Hardware: Onshape, Arduino Prototyping, 3D Printing, Laser Cutting

NOTABLE COURSES

- 11-785 Introduction to Deep Learning
- Introduction to Deep Reinforcement Learning from Pieter Abbeel's YT channel

LEADERSHIP EXPERIENCE

Hotchkiss Robotics Team (FIRST Tech Challenge) | Captain | 2021 - 2024

- Competed in the world championship
- 1st in Connecticut state championship
- Coded autonomus routines for the robot
- Created various mechanical systems using CAD, 3D printing, and laser cutting