

Holly Chen
+1 (909) 9124892
hollyc@andrew.cmu.edu

EDUCATION

Carnegie Mellon University – Pittsburgh, PA May 2024 - Present
– M.S. Research in Mechanical Engineering
– GPA: 4.0/4.0

Harvey Mudd College – Claremont, CA May 2024
– B.S. Engineering | Concentration: Psychology
– GPA: 3.53/4.0

RESEARCH & INDUSTRY EXPERIENCE

Musculoskeletal Biomechanics Lab (MBL) – Carnegie Mellon University May 2024 – Present 2024
Capacitive Sensing Smart Garment Wearable Device
– Designed and fabricated sleeve prototypes for improving signal robustness against noise
– Collected data with human subjects to validate sensor signals against simulation inverse kinematics

Lab for Autonomous Intelligent Robotics (LAIR) – Harvey Mudd College May 2023 – January 2024
Robotic Fishbed Research
– Implemented control gains for closed-loop control of a 4-wheel robot reacting to fish positions in a tank
– Designed animal-in-the-loop experiments using a lure-robot system to collect African Cichlid fish behavior data
AUV Shark Habitat Mapping
– Took georeferencing waypoints around the coast of Santa Elena Bay for AUV mission mapping
– Planned AUV missions using VectorMaps and collected side scan sonar data for shark habitat identification

Southern California Robotics Conference – UC Irvine September 2023
– Presented work on Robotics Fishbed Research during a poster session and connected with robotics professors

IISE Annual Conference – New Orleans, LA September 2023
– Presented on “Overcoming Obstructions to Lean Manufacturing” to industry professionals and researchers

Harvey Mudd College Riggs Fellowship – Claremont, CA June 2022 – August 2022
– Worked as an industrial engineering consultants to improve throughput and eliminate waste for two unique manufacturing lines at a secondary packaging company and an aerospace MRO company
– Communicated with operators, production managers and CEOs to develop a culture of continuous improvement
– Implemented optimized U-cell line layouts to improve communication and standardize production processes
– Applied Lean manufacturing principles and generated annual savings of \$1.2M and \$168,000 for the companies

ADDITIONAL WORK EXPERIENCE & LEADERSHIP

Makerspace Steward August 2022 – May 2024
– Trained users to operate 3D printers, laser cutters, sewing and embroidery machines, jacquard looms and more
– Troubleshooted and fixed machine breakdowns and failures
– Led creative workshops to teach new skills and encourage users to try different equipment and resources

DSA Muchachos, Student Programming Treasurer, Advertising Chair March 2020 – May 2024
– Hosted 2-3 weekly social programs for students such as paint nights, trivia nights and student talent shows
– Planned the logistics for large events like a haunted house, Valentine’s day hearts and holiday meal photo booths
– Advertised and promoted events by creating posters, emailing the student body and posting on social media

Continuum Mechanics Grader May – December 2023
– Reviewed homework and lab rubrics with a small group of graders and the class professor
– Graded and provided feedback on weekly homework sets and labs for engineering peers

SKILLS

- **Skills:** Python (expert), MATLAB (expert), SolidWorks CAD (proficient), OpenSim (proficient), ANSYS (beginner)
- **Languages:** Fluent in English, proficient in Mandarin