Tommy Nguyen

Los Angeles, CA | tommyvnguyen0@gmail.com | tommyvnguyen.com

EDUCATION

University of California, Los Angeles (UCLA) Sep. 2018 - Jun. 2022
Bachelor of Science in Mechanical Engineering GPA: 4.0/4.0

EXPERIENCE

Mechanical Engineer Intern Jun. 2021 - Sep. 2021
Nordson | Carlsbad, CA

- Designed a pneumatic powered test fixture which delivered a silicon wafer, allowing for cheaper and more efficient testing on dispensing machines
- Researched various linear movement mechanisms, created initial concepts, and used tradeoff analysis to choose pneumatic cylinders as the cheapest effective design
- Modelled the test fixture in SolidWorks, working with sheet metal and creating drawings
- Analyzed displacements on created sheet metal parts using FEA and hand calculations, recognizing weak points and reinforcing them with ribbing
- Wrote and implemented LabVIEW code onto NI DAQ modules to control the test fixture and set up automatic cycling, allowing for overnight testing without human intervention

Customer Service Representative Oct. 2018 - Jun. 2019
ASUCLA Ackerman Union | Los Angeles, CA

- Took customer orders and prepared tea drinks, communicating efficiently with coworkers to solve any arising issues

PROJECTS AND ACTIVITIES

UCLA Rocket Project Club Sep. 2019 - Present

- Developed a new nose cone manufacturing method involving laying up fiberglass directly over 3D printed PLA, reducing production time from four to two days.
- Designed an engine thrust stand with two axis rotation, allowing for safe testing of the angular correction system for a gimballed thrust rocket
- Currently working on creating simulations and programming a PID controller for a gimballed thrust rocket which will allow for stable rocket flight without fins

Solid Motor Rocket Sep. 2019 - Dec. 2019

- Led a small team to design, manufacture, and launch a rocket, which was the only team to successfully carry an egg to apogee and return undamaged
- Designed and 3D printed a detachable nose cone and shoulder in Solidworks which allowed for three times as much egg padding compared to a traditional nose cone design

3D Printed Macropad Jul. 2020 - Sep. 2020

- Designed, 3D printed, and hand wired a macropad (small keyboard), creating a 40% cheaper alternative to commercial options
- Wrote code using Arduino IDE to program communication between the macropad and a computer

SKILLS

Software: SolidWorks, MATLAB, C++, Arduino IDE, LabVIEW
Hardware: 3D Printing, NI DAQ, Electronic Soldering, Machining, Fabrication