Nathaniel Lim

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Master's Student in Mechanical Engineering at Stanford. Seeking internships for Summer 2024.

WORK EXPERIENCE

Tesla, Fremont, CA — Hardware Test Engineering Intern — Jun 2023 - Sep 2023

- Complete end-to-end ownership of multiple accelerated life tests for closures/exteriors components and subsystems

- Primary engineering owner for design of test fixtures and cycling robots for strength and durability testing across the complete range of Tesla vehicle platforms

- Motivated several notable design changes via thorough test planning and execution

- Coordinated fixture design and results analysis of supplier testing at the component level

EcoCar EV Challenge UC Davis, Davis, CA — System Design and Integration Lead — Aug 2022 - Jun 2023

- Lead and mentor to a team of students tasked with designing and integrating an energy efficient electric powertrain in a Cadillac LYRIQ

- Individually responsible for the development (design, prototyping, test planning, and integration) of a custom chassis structure and powertrain mounting strategy

- Used 3D Scanning and other CMM tools to reverse engineer existing vehicle structures for integration of new powertrain

Tesla, Fremont, CA — Hardware Test Engineering Intern — Jan 2022 - Aug 2022

- Developed and implemented an original method of cycling manual vehicle closures via 4-bar linkage

- Designed and programmed automatic control systems for tests with up to 12 actuators functioning simultaneously

The Puddle Car Wash, Boulder, CO — Crew Member — Jun 2018 - Sep 2018

EDUCATION

Stanford University, Stanford, CA — M.S.M.E. — Sep 2023 - Jun 2025

Concentration in Design Methodology

University of California, Davis, Davis, CA — B.S.M.E. — Graduation: Jun 2023

Graduated with High Honors

PROJECTS

Design and Fabrication of Hybrid-Electric Go-Kart — Jun 2021 - Sep 2021

- Designed a series hybrid go-kart with a custom torsion bar suspension system and steering assembly

- Fabricated chassis, suspension, and steering assembly completely from raw materials

Automatic Greenhouse Watering System — Jan 2019 - Mar 2019

- Designed and prototyped an automated solution to plant watering inefficiencies in the UCD campus greenhouse

- Successfully created a functioning arduino based prototype in eight weeks

SKILLS

Mechanical Design

Automation

Robotics

Controls

CAD (CATIA 3DExperience, CATIA V5, SolidWorks, Fusion 360, Siemens NX)

CAE (Ansys, Simcenter NASTRAN)

CAM (Fusion 360)

3D Printing

3D Scanning/Reverse Engineering

MATLAB

Python

C/C++

AWARDS

EcoCAR Fellowship Award - Nov 2022

Paid fellowship awarded as only undergraduate in a technical leadership role.

UC Davis College of Engineering Deans' Honor List (7x):

Winter 2019, Spring 2019, Fall 2019, Spring 2020, Winter 2021, Spring 2021, Fall 2022