# CONOR ZACHAR

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# **EDUCATION**

## University of California - Berkeley

Bachelor's, Mechanical Engineering

# **PROFESSIONAL EXPERIENCE**

#### Starpath

Associate Mechanical Engineer

- Sole Responsible Engineer for company-wide Ground Support Equipment
- Designed (Siemens NX, Ansys FEA), manufactured (MIG welding, laser-cutting), and tested (Arduino) a mission-critical 40 kW cooling system
- Designed a mass offloading system to offload a 1000N solar array with COG moving with 3 DOF

#### Amazon

#### Hardware Development Engineer

- Owned product development of a new air quality monitor for mass-production
- Designed an experiment to assess competitor models and inform sensor vendor selection
- Used CAD (Creo) to model a prototype suitable for consumer outdoor use; 3D printed and assembled the design
- Tested the prototype in-lab to achieve 10% improvement in sensing accuracy

## LEK Consulting

Associate - Technology Practice

- Conducted sell-side due diligence of a leading energy grid simulation vendor
- Coordinated a research campaign, sourcing and leading 50+ interviews of energy industry executives

## Lightning eMotors

**Program Management Intern** 

- Designed and manufactured a protective housing for Lightning Mobile DC fast-charging module using CAD, laser cutter
- Developed and executed a customer survey to diagnose and address customer pain points in Lightning's EV fleet.

# **PROJECTS & OUTSIDE EXPERIENCE**

#### **3D Printed Gait Sensing Insole**

- Developed a 3D-printedpiezoelectric insole to measure gait patterns using DLP printing and
- Arduino

## PetalPal Smart Vase

- Designed a custom spout for mass production (DFM) using Fusion 360 and prototyping via SLA
- 3D printing

## **Self-Driving Robotic Pet Toy**

Engineered a chassis, housing, and transmission for a self-driving robot in PTC Creo, and manufactured the robot using a mill, bandsaw, and 3D Printer

#### **Fishing Speargun Design and Animation**

Designed custom speargun body in CAD, fully integrated with loading and trigger mechanisms; animated functionality in 3DS Max

# **SKILLS**

Design & Analysis: Ansys, Siemens NX, PTC Creo, SolidWorks, Fusion 360, MATLAB, Python, FEA, GD&T, Arduino Manufacturing: Aluminum Welding, Soldering, 3D Printing (FDM, SLA), Lathe, Mill Languages: Italian, Spanish

GPA: 3.62

Hawthorne, CA, USA September 2024 - Present

August 2020 - May 2024

Sunnyvale, CA, USA May 2022 - August 2022

San Francisco, CA, USA

June 2023 - August 2023

Loveland, CO, USA

May 2021 - August 2021