

Owen Farmer

owenfarmer@berkeley.edu | (510) 565-0904 | www.linkedin.com/in/owenfarmer/ | owenfarmer.github.io/

Education

College of Engineering - University of California, Berkeley

May 2022

B.S. Mechanical Engineering

GPA: 3.4/4.0

Coursework: Manufacturing and Tolerancing (Reader), Rapid Prototyping, Design for Manufacturing, Human Inspired Design, Biomaterials, Manufacturing Improvement, Experimentation & Measurements, Mechanics of Materials, Statics, Fluids, Heat Transfer

Work Experience

Facebook, Mechanical Engineering Intern, Server Hardware

June 2021 - September 2021

- Designed new server tray supporting add-in cards, creating sheet metal structure/supports, plastic baffles, die cast latches/handles
- Performed tolerance analysis to determine spacing between parts on PCB and between key locating features at tray and rack level
- Optimized part geometry and their placement to allow for maximum airflow through tray, making tray 12% more energy efficient

Apple, Product Design Intern, Audio Products

February 2021 - June 2021

- Performed tolerance analysis on plastic case and cosmetic/acoustic meshes, conducted failure analysis with global manufacturers to root cause mesh gap and step issues, and designed/validated mesh measurement fixtures to reduce DPPM
- Created system level CAD model for FEA drop simulation, creating glue/solder bodies and simplified FPC/module representations
- Designed, prototyped, and validated comfort sensing fixture, selecting components/materials to represent headband clamp force

Tesla Motors, Quality Engineering Intern, Body in White

January 2020 - April 2020

- Led studies with trial parts for dimensional improvement, using CMM data to identify and correct variations in framing stations
- Conducted failure analysis to root cause vendor quality issues and released drawing changes to dimensionally control key features
- Recertified and tuned fixtures to solve quality issues, creating documentation to coordinate changes between production shifts
- Redesigned metal datum pins using NAAMS Standards to engage in 2-way holes in framing stations, solving interference issues

Quartus Engineering, Mechanical Design Intern

June 2019 - August 2019

- Performed engineering analysis and testing for various clients, including weight calculations, force calculations, etc.
- Designed catwalk and planned warehouse space for roll out solar array manufacturing and testing setup
- Wrote a telescope alignment script to automate lens alignment, providing calibration curves for user

UC Berkeley Machine Shop, Technician

August 2018 - January 2019

- Taught new students how to use machines and completed manufacturing requests from the UC Berkeley community
- Maintained and updated machines in shop (lathes, mills, CNC's, presses, saws)

Meyer Sound, Mechanical Engineering Intern

May 2018 - August 2018

- Iteratively designed, prototyped, and validated plastic baffles to cool speaker drivers, cooling by 23°C during worst case use
 - Designed speaker enclosures and metal mounting brackets, ensuring stability in high load cases while maintaining audio fidelity
 - Developed CAD models for missing or incomplete parts, and created 2D and 3D .dwg files for entire speaker product line
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Projects

Human Powered Vehicle Team Lead

September 2017 - January 2021

- Led a team of 15 to design, manufacture, prototype, and test a human powered vehicle capable of travel at 60 mph
 - Perform structural FEA analysis to optimize aluminum frame to weigh as little as possible while still withstanding worst case loads
 - Manufacture/weld parts in machine shop and stress test individual parts and entire assemblies for safety
 - Lead camera/onboard LCD system implementation in order to reduce the need for a less aerodynamic windshield
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Skills and Interests

Software: SolidWorks, Creo, ProE, NX, Teamcenter, CATIA, AutoCAD, ANSYS, Fusion 360, Autodesk Inventor, MATLAB, MS Office

Manufacturing Skills: Machining, Welding, Sheet Metal, Die Casting, GD&T/2D Drawings, Plastics, 3D Printing, Laser Cutting

Interests: Unicycling (World Record Holder, 2x North American Champion), Downhill Longboarding, Snowboarding, Surfing