

Trevor Folden

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Education

Bachelor of Science in Mechanical Engineering - California State University, Chico

May 2023

- Honors in Mechanical Engineering

GPA: 3.53

Experience

Research Technician – California State University, Chico

May 2022 - Present

- Designed, fabricated, and ratified modal analysis testing procedure for metal 3D printed (AM) part validation
- Pioneered the use of modal analysis for defect detection (location and magnitude) in AM parts in team setting
- Supported experimental results with mathematics and simulations in ANSYS
- Negotiating multi-year contract with Lawrence Livermore National Laboratory to secure funding and equipment

Mechanical Engineering Intern – Zomes (Geodesic tiny home manufacturer)

Summer 2021

- Supported continuous operation of 5-axis Motion Master CNC machine for mold making
- Composed efficient tool paths using Fusion 360 CAM software, and facilitated tool changes and maintenance

IT Support Admin - MVLA School District

Seasonal 2019 - 2020

- Systemized the cataloging of over 3000 Chromebook computers streamlining the diagnosing and repairing process
- Provided IT support for 50+ faculty members, coordinating, prioritizing, and resolving technical issues

Projects

Project Manager for Remote Endovascular Therapy Delivery System - Medtronic

August 2022 - Present

- Designed, built, and tested a remote stent deployment system for endovascular aortic aneurysm repair procedures
- Delegated responsibility as project manager utilizing a Gantt chart (MS Project) to track and ensure project success
- Coordinated with Medtronic to secure financial support and integrate with the existing product line
- Simulated effect of aortic blood flow on system for motor sizing with SolidWorks FEA

Coffee Grinder

March 2022 - June 2022

- Designed and fabricated with SolidWorks, 3D printers, and both manual and CNC machining techniques
- Calculated shaft diameters, identified failure modes, and evaluated fatigue life of the system with Excels goal seek
- Authored technical report summarizing process and articulating engineering analysis in a concise manner

Driver Safety and Ergonomics - Baja SAE Student Group

August 2019 - 2020

- Enhanced driver safety and comfort, improving driver experience and car performance
- Adhered to industry standards while using SolidWorks to iteratively design seat and seat pads

Portfolio Website

August 2022 - Present

- Self-taught HTML and CSS languages to produce an engineering portfolio showcasing personal projects and skills
- Purchased domain (trevorfolden.com) and published a polished website to the internet

Skills, Groups, & Interests

Technical Skills:

- SolidWorks certified (Professional and Associate)
- Manual & CNC machining, Arc welding, hand tool proficient
- Microsoft suite: Word, Excel, PowerPoint, Project
- Python, MATLAB, Fusion 360, LabVIEW, ANSYS

Student Groups: Tau Beta Pi Engineering Honor Society; Baja SAE; Chico State Roundnet Team (Spikeball);

Interests: 3D Printing; Music (10 years of classical guitar); 49ers Football; Lock Picking; Boulderling; Chess;