

Calen Halcom

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A creative and driven engineer experienced in applied engineering projects and societies. Possesses engineering testing, design, and validation expertise with exceptional problem-solving and analytical skills. Knowledgeable in engineering principles and their application in the mechanical engineering field.

Relevant Experience

- **Tesla:** NVH Engineering Intern (01/24 - 08/24)
 - Root-caused issues and designed countermeasures to address NVH-related issues
 - Identified/addressed Model X A-pillar sound leak
 - Performed vehicle operational and stationary testing for road, wind, and powertrain noise evaluation using Siemens Testlab data acquisition systems
 - Optimized NVH metamaterial performance and mass using a custom algorithm
 - 10% absorption improvement over industry-standard melamine foam
 - Simulated/tested material sound absorption and transmission loss properties
 - Compared with supplier data to ensure quality
 - Employed FRF, sound intensity, and transfer-path analyses and methodologies
- **Rapid Prototyping Studio:** Technician (08/22 - 05/23)
 - Engaged with clients to carry out requested rapid prototyping jobs
 - Provided alternative design considerations for better prototypes and designs
 - Designed CnC housing with vibration and sound considerations

Education

Texas A&M University (21~25): Bachelor of Science, Mechanical Engineering, GPA: 3.4

- **Design Team (Formula SAE IC, Capstone) - 24~25:**
 - Chassis Main CAD:
 - Established the main design intent/philosophy for the full chassis model
 - Accelerated chassis design cycle by 3 weeks
 - Emphasized/facilitated suspension, powertrain, and aero integration
 - Lead chassis macro-geometry for aero/sus performance
 - Exceeded torsional rigidity goal by 11.75%
 - Worked within the chassis subteam to generate and validate design solutions
 - Seating/driver ergonomics
 - Impact Attenuator and Safety
 - Materials (chassis, impact attenuator)
- **Design Team (Formula SAE Electric) - 20~21:**
 - Validated designs for efficiency, safety/ergonomics, and integrity/functionality
 - Engaged in physical manufacturing of the chassis and car jack

Skills:

Software: Solidworks (Certified Professional), LMS Testlab, Actran, AlphaCell, Python, MATLAB, CAM, Java, JavaScript, LabView, MS Excel

Design: GD&T, FEA, project planning and management, validation, physical system/material testing, safety compliance, root-cause analysis, acoustics, mechanical/mechatronic systems

Operation Familiarity: CNC, laser cutter, TIG/MIG welder, additive manufacturing (FDM, SLA, SLS)